

PHILADELPHIA MEDICAL TIMES.

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VOL. XVIII

ORIGINAL LECTURE.

CLINICAL LECTURE

ON THE DIAGNOSIS OF GASTRIC DISEASE BY THE EXAMINATION OF THE CONTENTS OF THE STOMACH.

Delivered at the Hospital of the University of Pennsylvania,

BY WILLIAM PEPPER, M.D., LL.D.,
Provost, and Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania.

Reported by WILLIAM H. MORRISON, M.D.

GENTLEMEN,—I shall to-day ask your attention to two cases, both of which bear upon the diagnosis of diseases of the stomach. The first of these is P. T., who comes from the northern part of this State. He is by occupation a stableman. He is 45 years of age and of excellent habits. He has, of course, eaten irregularly; and has been much exposed to damp, cold, and the like. He has no constitutional taint of any character, and was always a healthy man until eight years ago, when he began to suffer with pain in the abdomen, accompanied by occasional vomiting. This at first occurred immediately after eating, and also at times came on between meals. This attack appears to have been one of some acute affection, for in the course of a few weeks he entirely recovered; and he

then remained in his former excellent health until three years ago, when he had another attack, similar to the one just described. The second one, however, continued four months, and was attended with loss of flesh, strength and color. In this attack there were, as in the first, recurring attacks of pain in the abdomen, with vomiting. After continuing four months, the symptoms subsided, and he rapidly regained flesh and strength. He then remained in his usual health until eighteen months ago, when, for the third time, gastric symptoms appeared, and since then they have continued without remission. During this time the case has been complicated by the unfortunate occurrence of salivation, with total destruction of all the teeth, save three, and exfoliation of a portion of the inferior maxillary bone. I need not say how seriously such a complication would retard any attempt at recovery. Whether from this, or whether it is that this time there is something more serious than in the previous attacks, the fact remains that, since the occurrence of the present attack, the course of the case has been steadily downwards. There has been a progressive loss of flesh from 140 pounds to 97 pounds, his present weight. He is pale and haggard. His expression exhibits the effects of suffering. His nervous system has been broken down, and he is

weak and tremulous. With the exception of this failure of general health, color and strength, his symptoms have been entirely referable to the stomach.

These have consisted, in the first place, of vomiting. There have been very few days in which he has not vomited at least once. Gradually, this increased in frequency and, for a number of months prior to his admission to the hospital, he did not pass a day without vomiting and sometimes he would vomit several times a day. The vomited matters consist of the food and of slime, but it is not known that he ever brought up blood. The material thrown off is sometimes offensive. The act of vomiting has borne no constant relation to the taking of food: neither as to the character of the food taken, nor as to the period after eating that it occurs. Sometimes the food is returned as soon as taken, while at other times it remains in the stomach a considerable period, undergoing fermentation and decomposition.

A second severe symptom has been pain in the stomach. This has been referred to the epigastric region. It has been so severe that for many weeks it was found necessary to keep him under the influence of morphine. His physician writes to me that at times it has been necessary to give him as many as nine one-quarter grain doses of morphine each day. There has been no soreness complained of. There has been increasing constipation, and lately he has gone a number of days without a stool. The patient has taken no morphine since he left his home. The bowels have been more regular than for a long time, the pain has been less, and there has been very little vomiting. His wife tells us that she thinks that he was more reduced from the second attack, lasting four months, than he is at present.

Taking the man as he lies before us, and considering these symptoms which have continued progressively for eighteen months, we ask ourselves, What condition of the stomach would explain this train of symptoms? Is there any simple form of dyspepsia, or of aggravated catarrhal dyspepsia, which would do it? The symptoms have been so steadily progressive; the loss

of flesh has been so extreme; the vomiting has been so frequently repeated; the constipation has been so marked; and the pain has been so conspicuous, that it seems to me that there is no simple dyspepsia which would explain this case. When, however, we reflect that twice before in this man's history similar symptoms have been present and subsided, our judgment becomes a little confused. If the patient has the same thing to-day that he had on the two previous occasions, it must be some simple affection, and not a progressive organic disease; but the fact that he had a severe attack of catarrhal dyspepsia eight years ago, and possibly ulceration of the stomach three years ago, terminating in recovery, would not prevent the development of some organic disease at a later period.

Let us then see if we can demonstrate the presence of some serious organic disease. We should say that there must be some grave change in the walls of the stomach; either a severe ulceration with loss of continuity of the mucous membrane, interfering with digestion and causing this failure of general health, or else that there is some neoplasm forming in the walls of the organ. In all cases of severe gastric disorder we finally come down to actual palpation of the epigastrium to see if we can determine the presence of thickening or of tumor, since in grave catarrhal dyspepsia and in prolonged simple ulceration of the stomach the symptoms may so closely simulate those of malignant disease that nothing but the direct palpation of the abdominal walls will enable us to make a positive diagnosis. When we come to examine the abdomen in this case, we find, on inspection, that the belly is about normal, and that there is no distension in the gastric region. Percussion over the stomach does not give a very large tympanitic note, nor is the gastric note very extensive in its area. It does not go much beyond the median line toward the right. It does not go lower than to a line one inch above the umbilicus. Neither is there any displacement upwards of the diaphragm. There is evidently no great degree of dilatation of the stomach. You will

recognize the importance of this fact when you reflect that, if there is a tumor in the pyloric segment of the stomach so as to encroach upon the stomach, causing obstruction, there is apt to be extensive dilatation of the stomach. On palpation, we find no evidence of disease in the anterior aspect of the stomach, over its largest curvature; but when we come to the region of the pylorus, there is a distinct, hard, irregular, oval body discovered. This is somewhat movable, not tender upon pressure, and, from its position, its size, and its mobility, it strongly suggests thickening about the pyloric orifice. I dwell upon these points in the diagnosis because we shall endeavor to make use of a positive means of diagnosis in this case.

When, in any case, there have been long-continued symptoms of gastric irritation, and we find a positive thickening of the walls of the stomach or an isolated tumor, there is, of course, little else to do but recognize the presence of a neoplasm. These are for the most part malignant growths; and when limited to the pylorus, as in the present case, they are usually scirrhus in type. Scirrhus of the pylorus is one of the most common forms of neoplasm of the stomach. If we accept this demonstration as conclusive, you will at once see that we have to deal with a wholly different condition from what the man has presented in the past. The patient's wife tells us that, three years ago, this man was in a lower state of health than at present; that the vomiting was as frequent, the pain was as urgent; and that the emaciation and debility were even more marked than at present; and yet from this condition he recovered and returned to his usual health. It is manifest that he could not have had scirrhus of the stomach at that time. While in this condition there may be temporary improvement, there would not be this return to general health that has been reported.

Can it be that the man had gastric ulcer with aggravated gastric catarrh, and that he has now fallen into a more serious condition? or is it possible that there may be another condition which has grown out of the former attacks?

Is there any other condition of pyloric thickening and obstruction with tumor formation which is not malignant in its nature, but which may have its origin in such conditions as have been described in this case? In your autopsies, you will occasionally meet with fibroid thickening of the walls of the stomach about the pyloric orifice. The walls are thicker and denser and offer some obstruction to the passage of food through the pylorus, but in this country I think that we comparatively rarely meet with cases of very highly developed pyloric stenosis due to fibroid thickening. We certainly do not meet with such marked cases as are reported from abroad. I have been struck with the number of cases reported from Italy, in which the patients presented symptoms identical with those which this man has suffered and in which the lesion has been found to be non-malignant, fibroid alteration in the pyloric ring. These cases do not necessarily result from syphilis, and in this case there is no history of syphilis. The condition sometimes follows protracted gastric irritation. The habit of rapidly bolting coarse, harsh food, may set on foot a slowly progressing catarrhal change, invading the deeper layers of the walls of the stomach, inducing a fibroid change in its substance, with the subsequent development of all the symptoms of the pyloric obstruction.

Is it possible that in this case there has been a process of this kind? That this man eight years ago had a severe gastric catarrh; that three years ago there was a greatly aggravated condition which ran into some organic change of the deeper layers and perhaps ulceration; that following this there has been a gradual fibroid induration and contraction about the pyloric segment, and that now we have to deal with the mechanical condition resulting from this change? I need not say that this is not merely an interesting subject for discussion, but it is a matter which concerns this man's life, and upon our decision of this question will be based our opinion of the future of this case and our whole course of action. If we had reason to believe that this was a fibroid contraction of the pylorus, no one could resist the temptation to perform laparotomy and then to open the stomach

and stretch the pylorus, or make a fistula or resect the pylorus as seems best. It would be impossible to allow this man to starve before our eyes without making an attempt to save him. If on the other hand there is a malignant growth, palliation is all that we could hope to accomplish.

Have we any means by which we can decide this question positively? At this point we are brought face to face with results of chemical tests of the secretions of the stomach in certain conditions of disease. In the diagnosis of these conditions, microscopical examinations have conspicuously failed. It was once thought that the presence of certain fungi in the matters vomited was demonstrative of cancer, but it has been shown that their presence is simply indicative of the occurrence of fermentation in the retained contents of the stomach. We are now studying the secretions of the stomach chemically to see whether or not there is any demonstrable chemical change whereby we can say that in one case cancer is present and in another that it is not. Riegel has found in his observations upon this subject that in the secretions from the stomach in gastric cancer, hydrochloric acid is not found, while in gastric ulcer the acid is always in excess. This statement is based upon the study of a very large number of cases. The observation has been repeated by other observers, and the result is in favor of Riegel's statement. I shall to-day practice lavage or washing out of the stomach, and have the matters removed, tested for the presence of hydrochloric acid. If we have in this method a constantly reliable means of diagnosing between cancer of the stomach and other gastric affections, we have made a great step forward. This man this morning took a mixed meal as recommended by Riegel; consisting in this instance of an egg, milk, and flour gruel. My own fear is that this is a case of cancer of the pylorus and that the former attacks were of a wholly different nature from the present one.

Two of the tests employed to detect the presence of hydrochloric acid in the contents of the stomach are methyl violet and Congo red. The presence of a minute trace of hydrochloric acid

changes the violet color of the one and the red color of the other to a blue. The addition of a portion of the contents of this patient's stomach fails to cause any change. We shall not, however, base any conclusions upon one test, but, during the coming week, we shall repeat the washing out of the stomach and the examination of its contents.

PROBABLE ULCER OF THE STOMACH.

The next patient is H. L., 36 years of age. He had scarlet fever when a child. He had syphilis eight years ago and since then has been healthy. He has not used alcohol to excess. The present illness began fifteen months ago. It began with pain in the stomach, and this remained for six months. After remaining absent for one month it returned. During this time he has been failing in flesh and strength, and suffering with spells of pain in the epigastrium. Two months ago, vomiting began, and since then he has continued to vomit, usually one hour after eating. The bowels have acted irregularly. During the past six months he has lost between thirty-five and forty pounds in weight. He occasionally rises at night to pass water. He has had night-sweats. The skin is of the natural color without cachexia. The tongue is large and flabby and marked by the teeth. The examination of the urine reveals no sign of organic disease of the kidney. There is no evidence of organic disease of the lungs. As a rule the temperature has been normal; but once during the past week the temperature went up to 103° for one day. There is no cardiac lesion, and neither the liver nor the spleen is enlarged. The belly is flaccid and there is no tenderness on pressure. There is some increased resistance in the epigastric region probably due to muscular action.

The symptoms in this case pointed to organic disease of the stomach, and we determined to apply the test which I have just described; but unfortunately, on the morning that the test was applied, the patient complaining of some acidity of the stomach, was given a dose of bicarbonate of soda with his breakfast. While it is perfectly possible that hydrochloric acid may have been absent from the secretions of this

man's stomach, the fact that none was found does not prove it, for it may have been present and have been completely neutralized by the alkali. This emphasizes the necessity for care in the application of this measure. We should base no opinion in any case upon a single examination. It will of course be necessary to repeat the observation in this case.

This patient has never vomited blood. Hæmatemesis has considerable diagnostic value. The vomiting of blood of course indicates rupture of the capillaries or a solution of continuity of the lining membrane of the stomach. It is therefore one of the indications of the existence of ulceration. This ulceration may be simple or malignant. Sometimes the vomiting of blood results solely from excessive engorgement of the vessels depending upon mechanical obstruction to the escape of the blood. One of the causes of vomiting of blood is cirrhosis of the liver, where the obstruction in the portal circulation dams the blood back upon the stomach; the capillaries become over-distended and rupture, resulting in the escape of a large quantity of blood. Where the blood comes from a lesion of the stomach itself, as I have already said, the ulceration may be simple or malignant. There is something to be learned from the character and the amount of blood vomited. In simple ulcer of the stomach the vomiting of blood is more common than in malignant disease. The blood is not apt to be much changed by the action of the gastric secretions, as it is usually brought up soon after it escapes from the vessels. In gastric cancer, particularly where there is obstruction, the blood is subjected to the action of the gastric juice, and is apt to be vomited in the form of little black granules which resemble coffee grounds. You can not however base a positive diagnosis upon these distinctions. You may indeed have simple ulcer of the stomach, or gastric cancer may run its entire course to the fatal end, and without a single trace of blood being vomited. Its absence in this case, while suggestive, proves nothing.

A word with reference to pain. Pain is usually much more marked in simple ulcer than in cancer. In the former

affection it is apt to be associated with some tenderness on pressure over the region of the stomach. With regard to pain there is, however, the greatest possible difference. In some cases of cancer the pain is extreme, while in others no pain whatever is complained of; in this case, as we have heard, the pain is extremely marked.

The act of vomiting is common in both conditions, but is more frequently absent in cancer than in simple ulcer. Where there is cancer about the pylorus with increasing obstruction, vomiting is certain to appear, and finally it occurs with regularity because very little can escape into the bowel. There may be cancer of the greater curvature, or of the anterior wall of the stomach, and not a single spell of vomiting occur from the beginning to the end. Vomiting is rarely absent in gastric ulcer. In cancer, the vomiting is more apt to occur at considerable intervals after meals, or without any reference to eating. In simple ulcer vomiting is often induced by the taking of food. The ingestion of food excites pain, increases the irritation, and the desire to vomit comes on, and the patient is not relieved until the stomach is emptied.

Constipation is naturally present in these cases, on account of the fact, that the stomach does not retain what it receives. It is often aggravated, as in the previous case, by the use of large doses of morphine to relieve the pain. With reference to the use of opium in these cases of disease of the stomach, there is much to be said against it, but you will often be forced to yield. Constipation is apt to be more marked in cancer than in simple ulcer, especially is that the case where the cancer is pyloric in its seat and there is actual mechanical obstruction. Under these circumstances the constipation may become obstinate. In ulcer, although the bowels may be torpid, they are usually acted on with comparative ease. As the ulceration in cancer progresses there is often a channel opened through the mass obstructing the pylorus, so that there may be natural movements of the bowels, or even diarrhœa from the pyloric incompetence permitting the peptones to pass directly into the bowel, where they stimulate peristalsis.

This patient has never had obstinate constipation.

In simple ulcer of the stomach, you find no thickening, no hardening, no tumor in the epigastric region; and a careful examination in this case has revealed nothing abnormal. In this case the evidence is in favor of ulcer rather than of cancer of the stomach. What we have learned does not prove that this man has ulcer of the stomach, but there is great reason to suspect that he has it, and that it has been undergoing a process of healing. We shall, however, have to consider whether or not simple chronic catarrhal gastritis without ulcer would be sufficient to explain all the symptoms. In a case of this kind, where the symptoms have been so grave, we should give the man the benefit of the doubt, and treat him on the supposition that there is ulcer. If the case is one of simple gastritis, the treatment adopted will cure it all the faster; and if ulcers should be present, the neglect of appropriate treatment may lead to disastrous consequences.

I shall treat this as a case of simple gastric ulcer by rest in bed, by a rigid milk diet, and by the administration of remedies calculated to facilitate the healing of the ulcer.

I shall have the examination of the contents of the stomach of both these cases repeated, and on a subsequent occasion shall report to you the results.

THE SYMPTOMS, DIAGNOSIS, PROGNOSIS AND TREATMENT OF MEDULLARY CANCER.

FREDERICK N. HYDE, OF CORTLAND, N. Y.

Read before the Third District Branch of the New York State Medical Association.

IT may be said that the name Medullary Cancer does not imply a sufficiently definite meaning. We concede this, but on the ground that while there is some vagueness in the meaning of the term, the varying appearances, in the color, consistence of its tissues and textures, in a given specimen of the tumor during the stages of its development as well as in its modes of degeneration, it answers all the purposes of surgical inquiry better than one restricting its name to more definite meaning, as "cerebriform, encephaloid, or

cephaloma," terms often applied to designate the disease in question. We mean that the latter do not answer so correctly to the disease as the term medullary. When we examine a specimen after removal by operation from the patient, how often do we find any continuous brain-like, encephaloid, or cerebral tissue evident to the eye, or when aided by the microscope?

There may be in certain portions of some of these growths a slight resemblance to brain tissue, but only here and there, and then but a faint one. In referring to the consistency of medullary cancer, it is quite properly called the soft cancer, which is in the main correct; but there are examples enough to require that they should be grouped as soft and firm medullary cancers, but not having in the latter case the hardness which is characteristic of the hard or scirrhus cancer. It can be said of the growth of medullary tumors (except in their earliest type) that it is not characterized by a limited boundary line, but its increase of volume is by infiltration. Especially is this true of the softer variety. Herein, *i.e.*, in consistence, is a marked symptomatic distinction between the medullary and scirrhus cancer. We shall see further on that another difference of diagnostic significance is the respective seats and textures chosen by the disease: as in the intermuscular spaces of the limbs much oftener than the trunk. This has been verified in my experience in the case of some marked examples of the disease, beginning quite below Poupart's ligament, but in their growth involving the femoral and inguinal regions. Another symptom is the elasticity of medullary tumors, so often taken for slow fluctuation, and too often opened in good faith by the surgeon, expecting to see pus freely follow the withdrawal of the bistoury; but, to his discomfiture, he sees only blood or bloody serum, and in either case the discharge is free, and does not cease flowing as readily as he could wish.

Vascularity and rapidity of growth are symptomatic of medullary, but not of hard cancer. The blood vessels in the medullary, whether of the soft or firm kind, are larger and thinner walled than in the normal textures: both arteries

and veins. Their walls are softer; especially in the muscular coat, which becomes so impaired in function by infiltration that both the contractile and retractile office is lost; so that both the natural and artificial hemostatic resources are of little avail when lesion of blood vessels occurs within the limits of the morbid growth. Medullary tumors grow around and into the sheath and the outer coats of the larger arteries, as witnessed by me in the cervical region, in which the carotid artery was crowded upon all sides by the cancer; the same in the axilla, the axillary artery being firmly imbedded in the cancerous growth.

An instance is fresh in my memory, of a similar relation of the femoral artery to the tumor in the femoral region, into which a knife was passed deeply, the operator believing its elasticity was fluctuation and expecting to see what he had predicted—a free discharge of pus—but instead, a profuse bleeding followed, which could only be imperfectly controlled, causing the premature death of the patient. It cannot be said of the hard cancer that it is specially vascular, but that its average is a little less so, than in the normal structures around the growth; and as it grows it is more apt at first to press aside the larger vessels; but in its progress they become imbedded in the cancer structure, while the adjacent tissues are atrophied, which is never the case in the soft cancer. This is well seen in cancer of the female breast, in which the gland tissues waste in scirrhus; but in the soft cancer, the whole gland structures enlarge by infiltration, giving it much greater volume than when is the seat of the hard cancer, so prone to grow in this gland.

The medullary tumor in its earliest growth appears as a small, round, kernel-shaped, movable body; especially is this so in the soft form. These characters are soon lost; as they grow they become more lobulated. Now it is that the growth reaches into the muscular spaces; and if it should be upon the toes or bones of the foot, the morbid tissue will appear between the bones, and in its progress infiltrate the periosteum, and a little later the bone tissue. This disease is painless as a

rule in its growth, so long as it is free from its own disease or morbid changes; for it must be remembered that cancer has its own diseases, and they always appear earlier in the medullary than in scirrhus cancer.

The freedom from pain in the progress of this disease until it has attained large size, is to be kept in mind. My own records show numerous examples confirming this statement, even in cases where large nerve trunks are imbedded in the growth, as in the neck, axilla, humerus, thigh, and leg: an evidence of their loss of normal function from their infiltration with cancerous substance. It is only recently that a middle aged man came to see me with this form of growth occupying most of the forearm; but slightly lobular, color of the skin normal, not tender to the touch; his general health good; countenance natural; could labor, except that the hand and swollen arm were clumsy. My records show that the brief account of the case here given is nearly the same in twenty patients, between the ages of sixteen and fifty-eight years, who were seen by me before any signs of the disease or degeneration in the tumors, or marked constitutional failure, had appeared. Eleven of these cases were males, and nine females. Of these, seven were in the arm and forearm, nine in the thigh, two in the abdominal parietes, and two in the foot. In each of these examples, the elasticity of the tumors was marked. The cachexia, so well shown in hard cancer, is generally absent in the medullary, until the signs of its diseases or degenerations appear, when it develops rapidly.

There is a difference in the age at which the medullary cancer appears, and that of the scirrhus; the former begins in early life, while the latter never appears in persons under twenty years old, and rarely before the twenty-fifth year. The medullary is common in young life. More than a fourth of the cases occur before the twenty-fifth year of life. In my record of seven cases on this point, four were aged about three years, another one and a half, the other four under six years. Two of the former were in the eye; the other two were in the liver, as shown by autopsy.

Of the other three, one was in the mesentery, the others in the ankle and foot. The entire number of patients with the disease were under sixty years old. Occasionally it will occur at a later age; but, in my own records, only two as old as seventy are found: one of them in a lady, the tumor situated in the upper and front part of the thigh; the other a male, the disease being in the leg, involving the bones. My experience in the older subjects of the disease, when ulceration and sloughing are progressing, is that the bleeding is more profuse, the sloughing is in abundant fungoid masses, making a typical example of the "fungous hæmatodes" of the earlier writers. There are some sites in which the medullary cancer appears more often than the hard. In this I am sure the experience of other surgeons will agree with my observations. In its place of primary attack, one of its favorite sites is the testicle.

In this treatise my observations are based upon thirty cases: the youngest patient being eight, the oldest sixty years old. Two-thirds of the cases were in patients under thirty-five years of age.

In these cases the disease appeared oftener in the femur than in any other bone, as shown in my records. These cases included four per cent. of the articular surface of the head and two per cent. of its lower articulating surface. The arms and legs have shown the disease nearly as often as the thigh, it beginning in the intermuscular spaces. The eye, both in early childhood and middle life, has been often the primary seat of the medullary, but never, under my notice, of hard cancer. The mammary gland of the female, so often the site of primary hard cancer, shows but a small per cent. of medullary growths. I am not certain that I have ever seen more than one genuine primary medullary cancer in this gland in the female, and well remember, in the operation for its removal, that it required fourteen ligatures to control the bleeding. As illustrating the comparative frequency of the soft and hard cancer in given textures, my records on this subject show the removal of fifty-seven hard cancers in the mammary gland, against, as already stated, but one extirpation of the medullary disease. It will be

remembered that against this number of removals of hard cancer from the female breast a considerable percentage of cases were rejected as unsuitable for removal. My experience in removing medullary disease of the female breast consists mainly in the extirpation of the recurring disease after the removal of hard cancer. The returning disease, after one removal of the scirrhus cancer, acquires more the characters of the medullary; and, succeeding the third removal, all the appearances were those of marked, degenerating medullary cancer, whether it recurred in the primary seat or in more remote textures. Beyond these localities, as the chosen sites of the disease in external structures, no special preference has been noted by me.

Of this disease in internal textures my notes show that it is almost exclusively met with in the abdominal structures. In twenty-four cases of medullary cancer, twenty were in the liver, two in the spleen, and two in the mesentery. The progress of the disease in these visceral structures is more rapid than in the external textures, and the mean duration of the life of patients is much shorter. Autopsies show that as soon as degeneration of the tumors begin, the cachexia is strongly marked, the patients fail more rapidly than when the disease is in the peripheral structures. The age of persons with soft cancer of the abdomen corresponds with that of the external disease. While examples of hard cancer of the liver have been reported, it has never fallen to me to witness by autopsy an instance of hard cancer of the liver. In the reappearance of the disease, after thorough extirpation, its multiplication may be seen in any other structures, as illustrated in an example under my care, of removal of a hard mammary cancer, including the axillary glands. The wound healed quickly. In the fourth week it reappeared upon the forehead and side of the head opposite that of the removed tumor. It now showed the medullary form, and it was again cleanly removed; but, before the wound had quite healed, it reappeared in the upper part of the left femur, progressed rapidly, the patient weakened hourly, and while the nurse was gently moving her the bone

separated, after which the patient lived but a few days. The autopsy showed the typical pathology of destruction of bone by medullary cancer, including the head, neck, and the upper half of the femur. We must refer more minutely to the varying phases of the textures of a developing soft cancer than in the beginning of this paper. There can be seen on section of this tumor some fibro-cellular tissue with partitions of a capsular kind, which may be traced among imperfect tissues and other structures, and, when this is divided, portions of the mass will ooze out, showing the different textures; their color and consistence, that help to make the mass, parts of which are soft, brain-like apparently; others more firm, varying in their toughness to a softness that will sustain only the slightest pressure. The more degenerate the tumor, the softer and the more pulpy and spongy it feels. In considering the section of a medullary growth, we should not forget that its appearances may be much changed, if they have been the seat of any of the diseases common to this cancer, sure to come if left to its legitimate progress (excepting only the variety which some pathologists speak of, viz., withering, which I have never seen), such as inflammation, hemorrhage, ulcerous disintegration, and necrosis of tissue.

When any of the above diseases have appeared, then what is generally considered as a reliable test, the presence of cancer juice, will not represent the true exudation and is then of no avail in diagnosis. When the average lifetime of medullary cancer is compared with that of the hard, the clinical history of the two forms of the disease show that persons with soft cancer have but a little over the average of lifetime of patients with hard cancer, which is two years and a fraction less than a fourth; while persons with the scirrhus have an average life of a fraction more than four years from the beginning of the growth. From access to tables upon this point, compared with my own record of patients and the history of cases furnished by neighboring practitioners, they exhibit a corresponding difference in the length of time that persons live with the soft and hard cancer. These data includes cases which

received and others which had no treatment. Bearing directly upon the prognosis of medullary cancer, how far does treatment influence the results to which we have referred? The answer to this question furnished from my records is one of humiliation to the surgeon. For when he sums up the results of all forms and plans of treatment, including extirpation and amputation, he is obliged to admit that the average footing shows no marked prolongation of life.

But for the few exceptional examples, in which we know that removal of the disease lengthened the life of cancer patients, and made their lives more tolerable—as an offset to so many cases, in which he realizes that removal, either by dissection or amputation, failed to yield comfort to the patients, but possibly shortened life, he would be obliged to decline operative interposition.

Never has the subject of cancer occupied more earnestly the studious attention of surgeons, than in the last decade in all countries where the medical sciences are cultivated; animated by the hope and belief of eminent surgeons, that the achievement of its permanent cure was near at hand.

This opinion has been stronger, since its removal has embraced the practice of early and more sweeping extirpation of all tissues, not only of the glands in the close proximity of the primary site of the tumor, but, extending the operation to more remote lymphatic textures. Our distinguished countryman, the late Prof. Gross, as most of you know, became, in his later professional career, a most earnest believer in the early local nature of cancer, both soft and hard, and with the latter plan of its removal, to which allusion has been made: he believed that it could permanently be cured if the extirpation were made early enough. But this good man and great surgeon did not survive to see his prediction verified. He did see, as other surgeons have, and are occasionally witnessing to-day, where the removal was made early enough under conditions the most favorable for the operation, a longer period of non-recurrence, and good health of the patients.

In the diagnosis of medullary cancer

it has been necessary to institute some comparisons between it and the scirrhous tumor to keep more plainly before us the difference in the respective morbid growths, as bearing upon the prognosis of the medullary variety. We have seen the shorter average of persons with soft than with the hard cancer. All these portions of their clinical history are to aid us in their treatment. The shorter life of medullary cancer, and a proportionate shortening of the life of patients with the disease, will limit the operation of extirpation to a smaller number than in hard cancer, which grows slower of itself and allows an average length of life to nearly double that of soft cancer. I shall refer to no other treatment than extirpation; but would speak a word of caution against invading the tissues of a medullary tumor, which will not tolerate the smallest lesion, for its textures are non-reparative. It is urged that the growth should be explored as a diagnostic measure. I answer, except where this has been done in the earliest life of the tumor (too early to be of any value), it has been attended with harm only. I have never known an instance in which the little harmless looking puncture remained healed; but, on the contrary, it leads to a premature development of the degenerating processes of the disease. Much less, should the surgeon thrust the bistoury into the growth in question, believing that he had detected deep fluctuation when it was only elasticity. While the title of this paper would literally restrict us from the consideration of any other morbid growths, the analogies of the soft and hard cancers make it necessary and proper to consider them as a basis, for calculating the proper selection of cases of soft cancer for removal. The difference of the two forms in the length of life is to be borne in mind, that both patient and surgeon should not be disappointed by having mistaken the average period of recurrence, which is warrantable when we remove hard cancer. Looking at the recorded results of removal of medullary disease, it is true it restricts us to a pretty barren field for operative interference, but still the propriety, as well as necessity for removing soft cancer under given

circumstances, is not doubted. We are obliged to say of the operation, that the individual case must determine its necessity. We must consider the condition of the patient to bear the operation, the chances of a good healing of the wound, which is more likely when the tumor grows slowly; while neither earlier or later age of patients is favorable for removal. The absence of constitutional disturbance, the non-implication of important anatomical structures, vascularity, the chances for entire extirpation of all the morbid tissues, the absence of infiltration into adjacent textures are conditions to be carefully sought and weighed before the operation is to be made. In the earlier life of a medullary growth it has a more discontinuous character, so much so as, now and then, on dissection, to show a quite well defined boundary line, and appear quite free from infiltration.

This is the period of its progress, in which its removal is most complete; and, if our diagnosis be correct, the extirpation may be so perfect as to insure a long immunity against recurrence; but if it never reappears at the site of its removal, or in any other part of the body, then we have removed an innocent growth. The period of marked cachexy would contraindicate operating; for it would show that both the adjacent and more remote tissues were infiltrated, and give evidence of incipient degeneration of the tumor, and diffusion of cancer-cells in all the tissues.

There are conditions of patients with this disease which furnish frequently recurring bleedings, when the question of amputation as a palliative arises (all other means of controlling the hemorrhage failing), when the operation can be made far enough above or on the cardiac side of the tumor. It is objected to amputation of the extremities that there is a morbid state of the vascular textures, and admitting that the operation can be done far enough above the tumor, or diseased sloughing mass, as it is now, and the arteries ligated, the same liability will exist for premature separation of the ligatures. We say, when the sloughing fungoid masses are well away from the patient, with their rapidly exhausting discharges

the patient being placed in a less deadly atmosphere, he is given the only possible chance of arousing the weakened nutrient functions. The amputation should never be attempted without testing the patient's temperature, and if it prove to be ninety-six degrees or below then the operation is out of question.

In the following conclusions I have summarized the views expressed in this paper.

DIAGNOSIS OF MEDULLARY CANCER.

1st. Medullary cancer appears in early child-life, and rarely in patients over sixty years old.

2d. Hard or scirrhus cancer is never seen in persons under twenty years old, and rarely as early as twenty-five years.

3d. Medullary tumors never have the stone-like hardness of the scirrhus cancer, nor its irregular and jagged outline.

4th. The medullary, unlike the scirrhus, is highly vascular, develops rapidly, maturing in nearly half the time of the hard cancer.

5th. Persons with soft cancer do not show the cachexy so early as in the hard; it appears suddenly at the time when its diseases or degenerations are manifest; and then becomes strongly marked.

6th. The medullary as a rule grows more rapidly than the sarcoma, is much more vascular than the latter, its boundaries less distinct. Sarcoma is scarcely known in childhood.

7th. The medullary growths can be distinguished from the inflammatory swellings by the entire absence of the symptoms and signs of the latter during their normal life.

8th. None of the innocent tumors have so marked a preference for special localities and textures as the soft cancer, as noted in the early portion of this paper.

9th. The most reliable diagnostic sign of medullary cancer is its marked elasticity, not so plainly detected in its earliest growth as a little later, when it enlarges more rapidly.

10th. As soon as the growth becomes developed sufficiently to become the subject of surgical opinion, in a large majority of the cases the elasticity can be detected.

**THE INFLUENCE OF SEA-AIR
ON SYPHILITIC PHTHISIS.**

BY ROLAND G. CURTIN, M.D.,

Of Philadelphia.

[Read before the American Climatological Association,
June, 1887.]

MY motive for intruding upon your valuable time is merely to arouse interest in the investigation of the climatology of that disease which is the most important coming within the domain of this or any other society for consideration. I refer to phthisis. In looking over the literature of the subject, we find a surprising latitude and diversity of opinion as regards the proper climate for consumptives. Occasionally we find physicians giving their testimony in favor of a seaside residence for their consumptive patients, sending them to Florida, the New Jersey coast, or like localities; while the large majority of practitioners are very decided in their opposition to such a recommendation. Where there is such a diversity of opinion in regard to the climatology of such a common disease, there must be something for us yet to learn on this subject.

In almost every medical man's experience, he meets cases of phthisis that seem to be benefited by sea air. One gentleman with lung disease finds that his condition improves only while at sea on his yacht. On shore he "runs down," and the disease progresses unfavorably. Again, another patient, apparently similarly affected, is made worse by a sea voyage or a residence at the seaside. Why is it that such a diversity of opinion and experience prevails? Perhaps the cases I here report may be a means of solving this vexed problem. The usual experience with patients afflicted with phthisis, when sent to the seaside, is that they improve for one, two, and, in some rare cases, three weeks. They then begin to run down rapidly; so that, at the end of a month, they are worse off than when they first reached the sea air. Following this, the disease progresses much faster than if they had remained away from the ocean. The improvement first noticed is due probably to the change of air, food, and scene; but the diseased lungs do not long withstand the disadvantages of the condensed, moist, and stimulating salt air.

It has been my lot to observe five cases of what seemed to be syphilitic lung disease, in which sea air was apparently advantageous as a remedial agent.

Case I.—A young physician, while resident in a Philadelphia hospital, contracted a chancre; following this he had marked symptoms of constitutional infection: papular eruption, mucous patches, falling of the hair, osteo-copic pain. While these symptoms were progressing, he was seized with a cough, had some fever and evidences of consolidation at the apex of his right lung. Later the consolidated lung showed signs of breaking down. The constitutional symptoms were slight, and a diagnosis of latent pneumonia was made. He was slowly breaking down in health and strength, and the lung-tissue showed signs of increased invasion around the diseased part. The physical signs were tubular breathing, large and small bubbling, pectoriloquy and, at times, a cracked-pot sound could be elicited by percussion. He was so persistently running down, notwithstanding specific, tonic, and other supportive treatment, that, desiring to be among his relatives who were across the sea, he took a slow steamer to go to them. He was surprised and delighted to find himself greatly improved in health when he reached the other side. Dyspnoea, which had been a marked symptom, was greatly diminished. After remaining a while on shore, he found that his old symptoms were returning. He, therefore, took the position of surgeon on a steamer running between England and Brazil, by which months were required to complete a voyage. When again on the sea he noticed the same improvement that he had experienced previously while crossing the ocean on the way to his family. He made voyages continually for three years. At the end of two years I examined him, and found about the same amount of induration in his right lung as when he left this country. The cavities had contracted somewhat, and were perfectly dry. He had gained in flesh and strength, and although there was an occasional dry and hacking cough, he had no expectoration. Dyspnoea

was not at all troublesome. One year later he returned to this country and abandoned the sea. His condition at this time was much the same as just described. As soon as he began to live on shore the old disease seemed to take up its march, and in about a twelve-month he died with symptoms of advanced phthisis, associated with tertiary symptoms.

Case II.—A. C., a sailor, 38 years old, a native of the United States. He was an inmate of the Philadelphia Hospital. Four years before admission he had contracted a chancre, which was followed by unmistakable evidences of constitutional infection. A few months later he had some lung trouble, as shown by a cough, fever; later by dyspnoea on slight exertion, expectoration, and progressive emaciation. Being impecunious, the only avenue that presented itself for making a living was the vocation of a sailor. He accordingly went to sea, and improved in flesh and strength; respiration was easier. This was independent of any treatment. Subsequently he was unable to live at his home (a locality removed from the sea) without a marked increase in his pulmonary symptoms, even with appropriate treatment. He came to Philadelphia, began to drink freely, and soon had to take refuge in the hospital, where he died. Post-mortem examination revealed chronic lung disease, without evidence of tubercle.

Case III.—Mrs. E. died at the age of 29, having been married ten years. She had never been pregnant. Her history, antecedent to marriage, was as follows: She menstruated first at the age of eleven years, and had dysmenorrhoea always afterwards. At 19 she was married to a seafaring man of rather loose habits, who had contracted venereal disease at least once after marriage. She had never been very rugged, and was subject to dyspepsia and diarrhoea at times from her early girlhood. She had had a cough from early life, but this did not affect her general health until about the time of her marriage. After marriage, she had several attacks of lung disease, of rather indefinite character, each attack leaving her in worse condition than before. Dyspnoea

was always a marked symptom. She also had osteocopic pains. During the last year of her life she had ozæna, with involvement of the bones of the nose, and destruction of the septum, almost down to the lower margin. During the last four years of her life, it had been her habit to go to the seashore for several months in the summer. While there, night sweats would disappear; she would improve in flesh and strength; have less dyspnoea and less expectoration; her appetite would improve and all her symptoms ameliorate, and this was entirely independent of any medication.

Case IV.—C. H., in early life, had chancres, followed by secondary and then tertiary symptoms. He then had an attack of sub-acute pulmonary disease, and subsequently exhibited evidences of phthisis as indicated by physical signs: chronic cough, with purulent and frothy expectorations, occasionally a rather copious hemorrhage, night sweats, slow emaciation, marked dyspnoea, accompanied by the manifestations of tertiary syphilis. While the last named conditions were present, he was induced to leave his mountain home and go to an island on the New Jersey sea-coast. While at the latter place all medication was suspended. At the end of a week's sojourn there his condition was markedly improved in every respect. He was able to eat with a relish, sleep well, and go about without the fatigue which had kept him in almost a quiescent state previously. He extended his sojourn for two months, during all of which time these favorable conditions continued.

Case V.—E. C., a man, contracted syphilis, and soon afterwards had lung affection, which left behind a vomica at the apex of his right lung. A few years afterwards he married, and as a result of this union he had five children. Of these children, one daughter began to spit blood at 12 years of age; she afterwards expectorated a considerable quantity of purulent matter. Following this there was a general running down of the powers of life, associated with some expectoration and considerable emaciation. This continued for about a year, when her health began to improve, and she remained quite well

until after the birth of a child, which happened when she was 24 years of age. From this time she steadily failed, and died when her child was about a year old. I made a post-mortem examination upon the mother and her father, and found at the apex of the right lung, in each case, conditions identical: a cavity with a smooth surface, the size of a small orange, and lined with old, degenerated epithelium. A brother had a cough with hæmoptysis while a half-grown boy, followed by much the same symptoms as mentioned in the case of his sister. He is still living, and is said to have weak lungs.

Another brother, at the age of 18, had a cough, and seemed to be in danger of dying of consumption. He went to sea and recovered his health to a great extent. Afterwards, trying to live on shore, he found the symptoms of phthisis returning. He again went to sea, with precisely the same beneficial results as previously experienced. He remained on shipboard almost continuously for three years, after which time he came ashore in mid-winter, was seized with pneumonia in the right lung and died. This case, which seemed to be one of inherited syphilitic lung disease, was benefited by sea-air, without any specific treatment.

I do not claim that I have positive proof of the origin of the lung disease in the cases noted. My reasons for believing the first four cases to have been syphilitic phthisis are,—

First. No symptoms of marked pneumonia preceded the chronic phthisis.

Second. The lung symptoms followed syphilitic contamination and constitutional symptoms.

Third. The disease was to some extent influenced by specific treatment.

Fourth. There was no tendency to tuberculosis.

Case 5 seemed to be hereditary specific lung disease. How shall we determine a case to be one of syphilitic phthisis?

Dr. Wm. H. Porter, in an interesting and instructive article in the *Quarterly Bulletin of the Clinical Society of the New York Post-Graduate Medical School and Hospital* of August, 1885, says:

"The diagnosis is based upon five principal signs and symptoms:

"First. The abundant expectoration, without any signs of softening of the pulmonary tissue.

"Second. The weak and debilitated condition without marked emaciation and the good rational history of phthisis.

"Third. Pronounced dyspnœa without any evidence of a cardiac or pulmonary obstruction to the circulation.

"Fourth. The peculiar pain and the reaction to pressure upon the sternum and tibial crests.

"Fifth. The ready response to treatment is another element in the diagnosis."

He also noticed that the tubercle bacillus was absent in the cases examined by him.

What conditions of the atmosphere prevail at the sea level which are not present at an elevated location elsewhere?

First. It contains more moisture.

Second. It is denser.

Third. It contains some degree of saline impregnation.

Fourth. It also contains a small quantity of iodine.

What influence would these conditions have upon the diseased lung-structure?

The condensed atmosphere and the dampness, associated with the saltiness, would probably increase the circulation of blood in the diseased lung,—thus hastening the breaking down process in a tubercular lung; while, perhaps, in the syphilitic lung, the increased circulation might exert a favorable influence upon the disease by increasing the nutrition of the lung. The constant inhalation of the minute amount of iodine could perhaps assist in influencing the disease. (A physician informed me that he had observed, at the sea-shore after a storm, that the starch in his shirt had turned blue from the iodine in the air.)

Dr. Porter, in his paper referred to (in which he gives his observations on one hundred cases of syphilitic lung disease), states that in many cases the dyspnœa is not due to congestion or stagnation of blood in the lungs.

The cases which I have given are offered in the hope of stimulating observation in this direction, which may result in removing doubt as to the

efficacy of sea-air on syphilitic lung troubles.

These cases certainly prove that, in some instances, phthisis complicated with constitutional syphilis is benefited by sea-air.

With the strides now being made in diagnosis, I am sure that the developments of the near future will be such as to enable us to determine positively syphilitic lung diseases. Then the question raised in this paper can be definitely settled.

HOSPITAL NOTES.

ENLARGED SPLEEN.—Prof. Da Costa considers that there is nothing better than the fluid extract of ergot in half-drachm doses, given three times a day, for the enlarged spleen of chronic malarial poisoning.

QUININE FOR SEPTIC POISONING.—Dr. Clara Marshall prescribes at her clinic at the Philadelphia Hospital, in the treatment of septic poisoning, quinine in large doses to suppress the fever, and as much also of digitalis as can be well borne to assist in maintaining the heart's action until the poison is thrown off.

IN CASES OF PAINLESS ENLARGEMENT OF THE LIVER, in connection with malarial disease, Dr. Bruen gives from fifteen to eighteen grains of quinine, combined with iron and arsenic, during 24 hours before the remission. In a case of cirrhosis with enlargement of liver, Dr. Bruen ordered fifteen grains of potassium iodide, in a pint of water, the first thing on rising in the morning, with great benefit.

DIARRHŒA TREATED WITH THYMOL.—Dr. Bruen gives in cases of diarrhœa having seven or eight stools per diem, two and a half grains of thymol in a pill, one to be given every four hours, or fifteen grains in the 24 hours. He frequently gives larger doses of the thymol, commencing his treatment with lead and opium pills, and giving milk diet. He believes that thymol acts strongly as an antiseptic in diarrhœa, but is of no use in dysentery.

SYPHILIS IN INFANCY.—Dr. J. William White, in three cases of specific ulcerations in children, pointed out in his

remarks that the Hutchinson teeth are the permanent incisors and not the first set, as is generally believed. He recommends nourishing diet and absolute cleanliness, giving syrup of the iodide of iron, cod-liver oil, sometimes tonics, etc.; also one twelfth of a grain of calomel, with potassium iodide in doses according to age. He does not believe in routine treatment—that of burn! burning!! burning!!! He orders absolute cleanliness, and separation of the absorptive surfaces with absorbent cotton, the use of lead and opium.

TREATMENT OF CHANCROID.—Dr. J. W. White recommends at his clinic:

R	Acidi borici.....	3 j
	Zinci sulphatis.....	3 j
	Tinct. opii.....	f3 ij
	Aq. rose.....	f3 iv
M.	Fiat lotio.	

He says that buboes do not occur oftener than once in every three cases of chancre.

MALARIA AND BRIGHT'S DISEASE.—According to Prof. Da Costa, malarial poison causes certain forms of Bright's disease, and especially the catarrhal desquamative nephritis, which forms the large, white kidney. In the urine will be found tube-casts with a certain amount of epithelium, but not much oily or granular matter. If the tube-casts are granular, and there be oil and waxy matter in the urine during intermittent fever, we may be sure that the kidney disease existed before the onset of malaria.

INFANTILE SYPHILIS.—In cases of periostitis of the ribs, with formation of pus, in children of syphilitic taint, Dr. Deaver, of the German Hospital, gives iodide of potassium, and externally uses an ointment of belladonna and mercury. Later in the disease iron, quinine and cod-liver oil internally. If that fails to absorb the effusion he recommends evacuation.

TREATMENT OF SURGICAL SHOCK.—In shock of injuries, Dr. Deaver recommends lowering of the head; apply heat externally. He gives hot coffee, carbonate of ammonium and digitalis, to sustain the action of the heart, and he operates right after reaction.

DIARRHŒA.—In a case of diarrhœa occurring in a man seventy-two years of age, Dr. J. H. Musser prescribed:

R	Quinine sulphatis.....	gr. ij
	Masse hydrargyri.....	gr. ij
	Pulveris opii.....	gr. 4
M.	Ft. pil. no j.	Pro dosi. To be repeated three or four times a day.

DYSENTERY CAUSED BY LOCAL IRRITATION.—A woman came to Dr. Musser's clinic complaining of dysentery. An examination showed that the cause was retroversion of the womb. The lecturer stated that enlargement of the prostate is liable in a similar manner to cause dysentery in old men.

ACUTE CYSTITIS can be more quickly relieved by collinsonia combined with aconite and morphine than by the administration of any other remedial agents according to Prof. Shoemaker.

At the Philadelphia Hospital, Dr. Curtin showed the stomach of a man who had a large cancer in the pylorus. The lecturer called attention to the great distention of the viscus, owing to the difficulty in passing the ingesta through this orifice. In the last stages the food is retained for some days, and then vomited *en masse*.

DR. PORTER, at the same clinic, drew attention to a point in administering injections for gonorrhœa. The patient ought to be instructed to retain the injection by holding the head of the penis for five minutes at least, so as to allow the properties of the agent to take effect.

In cases of gonorrhœa with acute pain in the testicle, on careful examination this is often found to be due to a small hydrocele containing from one to three drachms of fluid. Opening the hydrocele with a small trocar or tene-tome will give instant relief.

DR. CURTIN says that he has effected the most benefit in the treatment of diabetes with cod-liver oil in tablespoonful doses one hour after eating. This is given with quinine, iron, arsenic and strychnine.

PROF. WAUGH speaks highly of calomel, gr. $\frac{1}{16}$, and powdered oyster shell, gr. ij, given every half hour, for vomiting in cholera morbus.

IN his lecture upon Asiatic cholera, Prof. Waugh recommended the following treatment:

Ice cloths to the abdomen, changed frequently; ginger ale as a drink, together with dilute phosphoric acid in large quantities; hypodermic injections of brandy, atropine or ether, to sustain the heart; voluminous enemata of tannic acid solutions, to be carried as far as possible up the intestinal tract. Hypodermic injections of cod-liver oil may be used to keep up the strength. Cramps in the muscles are relieved by large subcutaneous injections of saline solutions.

DR. J. M. BARTON had recently under his charge at the Jefferson College Hospital the case of a man with two penetrating wounds of abdomen, made with a broad knife. The case was seen three hours after the wounds were inflicted; the patient was under the influence of alcohol. There was considerable external hemorrhage. Upon the right side of the rectus muscle were seen two incised wounds which entered the peritoneal cavity in a diagonal direction, entering it about the median line. Under antiseptic precautions laparotomy was performed by Dr. Barton, and penetrating wounds of the liver discovered, the edges of which were united with interrupted suture of catgut. A penetrating wound of the transverse colon was brought together with the continuous Lembert suture. There was some blood in the abdominal cavity. After a mild attack of peritonitis the patient made a rapid recovery, and was discharged at the end of the third week.

IN MANY cases of shortening of the leg, producing lateral curvature of the spine and concomitant disorders, all that is necessary is to make the legs equal in length, as shown by Dr. Morton. The ordinary method is to put blocks under the foot affected, judging by the eye as to when equality is secured. But the eye is notoriously fallible, and it is especially liable to be deceived when there is a marked curvature. In order to make the length of the legs equal beyond a doubt, Dr. Sudduth suggests the following method:

Draw a line from one iliac crest to the other, apply to the line an ordinary

spirit level, put blocks under the foot until the instrument marks level; at which point the distance from each iliac crest to the ground must be the same.

HYDROCEPHALUS IN AN INFANT.—Prof. Da Costa introduced a child nine months of age, born without difficulty, but from the time it was three weeks old its head began to enlarge, until at present it is of enormous size, presenting a marked case of hydrocephalus without obvious meningeal disease. The child also has spina bifida, which, like the other, first appeared about the third week after birth.

The professor placed the patient under complete iodine treatment; iodide of potassium internally, and the compound iodine ointment to be rubbed in over the fontanelles. If no improvement results from this treatment, and no inflammation supervenes, he advised tapping.

HYOSCINE FOR CHOREA.—For a case of hemi-chorea in a young lady seventeen years of age, Prof. Da Costa prescribed hydrobromate of hyoscine.

FOR CONTRACTION OF THE CERVIX, WITH RETROFLEXION OF THE FUNDUS UTERI.—Dr. Deaver, at the German Hospital, performed dilatation of the cervix. After the operation he used a five per cent. solution of carbolic acid as a wash, then inserted into the cervix a suppository of iodoform, five grains, and one grain of opium in the rectum. For deformity of the femur he performed osteotomy by the subcutaneous method; he made an incision down to the bone, inserted the osteotome, and used the hammer. After the operation he sutured the wound and applied an iodoform dressing.

DR. MCCONNELL prescribes in the acute stage of gonorrhœa:

R Potassii citratis.....gr x
Tinct. aconiti.....gtt j
Morphinæ sulph.....gr 1-12½
Surap.3 j

M.—Take as a draught every three or four hours.

WITH hardly an exception, strabismus is caused by a defect in vision and can be corrected, if the case is taken in time, by the use of suitable glasses, is the teaching of Prof. Keyser.

TRANSLATIONS.

SPHYMOGRAPHIC STUDIES OF PARALYSIS AGITANS.—Dr. Armin Huber has graphically described the contractions of separate muscles in paralysis agitans as studied by the aid of Marey's sphygmograph. In one case the superficial muscles were clearly outlined like cords, and upon these was placed the needle of a sphygmograph, which marked the contractions and waves as accurately upon the paper as if it were upon the radial pulse.

The markings thus obtained revealed the following: That the contraction of one muscle in a given time is not always the same. In this case the right biceps brachii contracted thirty-four times on June 19, 1886, and twenty-nine times on June 22, 1886, in one second. In studying the curves of several muscles in a certain time, a marked difference in the number of curves were also seen. In one second the extens. digit., common, dext., contracted twenty-four times; the extens. digit., comm. sinister contracted thirty-one times, and the biceps of the right arm twenty-nine times. That the oscillations of different parts of the body occur in varied rapidity had been previously shown by Grossbey (*Arch. f. Psychiatrie*, xvj., S. 857, 1885).—HUBER, in *Arch. f. Path. Anat.*, etc.

DUODENAL ULCER.—In a recent monograph, BUCQUOY says that the diagnosis depends upon: (1) intestinal hemorrhages, with tar-like feces, occurring suddenly and abundantly, shortly after meals, causing extreme anæmia; (2) pain at the close of stomach digestion in the right hypochondrium, sometimes with reflex nervous phenomena; (3) vomiting, icterus exceptionally, and a remarkable preservation of the appetite. The duodenal ulcer occurs most frequently in men.

The treatment is nearly the same as that of gastric ulcer, but the exclusive milk diet need not be persisted with for so long a period.

ANTIFEBRIN AS AN ANTIEPILEPTIC.—Dr. A. Salm, in *Neurol. Centralblatt*, states that Dujardin-Beaumetz (in a report to the Société de Thérapeutique)

considered antifebrin useful in all cases of spinal irritation; in one case, by its use, he subdued and controlled an attack of epilepsy.

At the University of Strasburg, at Joly's direction and under Dr. A. Salm's supervision, eleven cases were treated with this drug, and no beneficial result obtained; it produced, however, a condition of cyanosis and colored the urine dark. In the middle, and at the end of the antifebrin treatment, the blood of the patients was examined, yet in not one case was methæmoglobin discovered. The subjective symptoms and condition of the patient were not materially influenced; and, in those cases in which the lips were colored blue, no serious or pronounced symptoms were produced.

A CASE OF BULBAR PARALYSIS.—LEYDEN, in *Charité-Annalen*, reports the following case: A pregnant woman, 37 years of age, who had been suffering for three years with left sided deafness, was attacked (in the third month of her pregnancy) by a sudden vertigo, and has shown since an extreme weakness of her lower limbs and difficulty of speech. These symptoms gradually increased, the right arm also becoming involved in this weakness. The patient being admitted to the Charité (six months after the first attack), her case was pronounced an acute attack of bulbar paralysis. The question as to the origin leads us: 1st. To her pregnant condition (myelitic or encephaloid paralysis, or progression and growth of a tumor under the influence of gravitation). 2d. A possible connection with her ear disease. 3d. Other diseases (e.g., syphilis).

Under the treatment with iodide of potassium her general condition improved somewhat, only to again go from bad to worse, until her death, about six weeks after her admission to the hospital, which occurred suddenly, through paralysis of respiration.

The diagnosis previous to the fatal termination, of a tumor of the petrous portion of the temporal bone was, upon section, proved to be correct.

An osteosarcoma of the left petrous bone and a tumor the size of an egg were found between the petrous portion of the temporal bone and the strongly compressed pons varolii.

PHILADELPHIA MEDICAL TIMES.

PHILADELPHIA, DEC. 1, 1887.

EDITORIAL.

THE LEPERS AND THE HEALTH AUTHORITIES.

TWO persons, a mother and daughter, on a visit from South America, consulted Dr. Van Harlingen of this city for a chronic form of skin disease, principally affecting the exposed portions of the body. From his examination the conclusion was reached that the disease in question was leprosy, and with the consent of the patients they were presented before the County Medical Society of Philadelphia, at a clinical meeting, and much interest was manifested in them by those in attendance. Unfortunately for Dr. Van Harlingen, the community derives its ideas of leprosy from early Scriptural sources; perhaps intensified recently by reading the popular novel, Ben Hur, and also by the reports of the Chinese lepers in San Francisco. Probably the members of our City Board of Health held this view of the disease when they took official action which resulted in incarcerating the unfortunate patients in the Municipal Hospital, with little hope of ever returning to their homes. The question is suggested: If these sufferers, instead of being women, had been business men, or, say the Crown Prince or Royal Highness of some place or other, the other conditions remaining identically the same, would the sentence of the medical court have been so summarily executed? There is no question but that these patients could have returned to their homes as quietly as they came, had it not been for the entirely senseless and sensational character given to their case by our Board of Health.

Since the demonstration of its parasitic nature, the question now should no longer be, "Is leprosy contagious?" but, "Are the favorable conditions present which are essential to its spread?" It must be admitted that in this country the virus is much milder than it is in the Sandwich Islands, for instance, or in ancient Palestine; and that, as it is a filth disease, our manner of living is decidedly unfavorable for its propagation. Von Ziemssen also declares, that experience has shown that the prognosis (*quoad vitam*) becomes better when lepers immigrate into countries free from the disease. In Norway and other European countries, direct communication of the disease, as from husband to wife, or from the sick to their attendants, has rarely been demonstrated. Even persons living in a leper settlement, in daily intercourse with lepers, may enjoy immunity for many years by the exercise of the ordinary precautions; as instanced in the case of the Jesuit priest at Molokai, who was reported a year ago as showing the first symptoms of infection after living a quarter of a century at the leper settlement.

Since the 11th century, when leprosy prevailed epidemically in France and other European countries which are now entirely free from it, modern civilization has entirely changed the conditions of life; so that neither the plague nor leprosy can now find congenial soil, in sufficient quantity, for their development and spread. It is true that civilization has required isolation of the leper; but his isolation is never absolute, and is far less rigid at present than it was in ancient times, when it failed to prevent the spread of the disease. Modern medicine can now isolate the patient by the use of antiseptic and detergent applications far more effectually than by a quarantine cordon; and it

is probable that the precautions taken by Dr. Van Harlingen would have proved quite sufficient for the protection of the public. That the interest of the profession is thoroughly aroused by these cases, was shown at the meeting of the County Medical Society on last Wednesday night, when it again had the subject of leprosy under discussion, following a lecture delivered by Dr. Bechtinger, of Panama, by special invitation of the Society. F. W.

GOOD NURSES AND BAD MANAGEMENT.

IN a recent issue of a Philadelphia Sunday paper appears the statement that two children temporarily left at the almshouse, while their father was out of work, after a two months' sojourn in that place, were returned to him covered with vermin and infected with a loathsome disease, which was said to have been contracted by the use of dishes, etc., which were handled by inmates affected with syphilis.

Such allegations are frequently made concerning public institutions, but an investigation generally shows the reports to be untrue, or exaggerated. We trust that this will prove to be the case in the present instance.

But we must take occasion to say that the management of this hospital, at the present time, is not such as to inspire us with the fullest assurance that the welfare of the inmates is the chief concern of their attendants.

When an English nurse was imported to take a position for which any number of qualified persons could have been secured at home, we thought the action of the managers somewhat sensational. Still, if the appointee faithfully did her duty, we stood ready to approve of the action of the board. The duties of her responsible position were such as to require her whole time

and attention. But instead of encouraging her to do this, she was made more or less of a social lioness, according to the prevailing taste.

Social success is dear to the feminine heart; dearer than all else after the advance of years has placed her beyond the influence of the maternal impulses. Once entered in the race for society honors, and family, household and other duties become of secondary interest. The love of dress, for this reason, long survives the loss of good taste in personal adornment.

Five o'clock teas may not be seriously objectionable in themselves, but the unremitting care, the constant watchfulness necessary to keep in order the heterogeneous population of the almshouse hospital, allow little time to be taken from the matron's day for such social relaxations.

The same method of spoiling a corps of trained nurses is said to be in operation in another of our hospitals. Here the imported nurses are placed in such absolute control that the physicians are reduced almost to nonentities. As one plaintively remarked, the only function left him is to sign the certificates of death. The nurse, secure in her position, ignores the physician entirely, and is seen driving in the Park with the managers during the warm summer evenings. How can she return with keen interest to the many disagreeable duties of her office?

W. F. W.

THE MALADY OF THE CROWN PRINCE OF GERMANY.

IN a former note we ventured to express some doubt with regard to the favorable prognosis in the case of the Crown Prince, although it seemed rather ungracious to do so, when authorities concurred in expressing the contrary opinion. The recent unfavorable turn, which the distinguished

patient's illness has taken, necessarily exposes Sir Morell Mackenzie to much unfavorable criticism; and those physicians, whose advice was disregarded in the earlier part of the year, are now not unnaturally ready to exclaim, "I told you so!" The case certainly bids fair to settle a point of practice, and to establish the propriety of early excision in papilloma, or pachydermia verrucosa or whatever may be the proper term to apply to this process, when it attacks the larynx.

It will be remembered that the warty growth had already been removed several times after destruction by caustics, before the world was startled by the statement, that it was proposed to submit the Crown Prince of Germany to the operation of excision of one-half of the larynx. If it had been anybody else it would have been done, but being the Crown Prince, the very proposal involved grave political considerations. Prince Bismark, it is an open secret, held very decided opinions. Bismark is old; the Emperor is very old. The men who made the German Empire are disappearing. The Radicals and Socialists are active and restless. The French watch for *la revanche*. A strong hand will be needed at the helm, and a strong man the Iron Chancellor would leave behind him. An emperor without a voice; an emperor with the horrible threat of death from cancer hanging over him, was not to be thought of; the Crown Prince, therefore, would have to abdicate. There seems to have been no attempt to dispute this conclusion; the only hope was that one of the premises was wrong. Was it really cancer? In this extremity Dr. Mackenzie was sent for in May. He was not so sure as Bergmann and his colleagues; at least he said, "let us remove a piece of this growth and submit it to a competent pathologist." So fragments of

growth were removed, and Virchow, who is generally held to be the most learned and experienced pathologist in Germany, if not in the world, said that it was not cancerous. That being assumed to be a true and final opinion. Dr. Mackenzie undertook to remove the whole of the growth then existing, and so did. Now it has recurred lower down, and with characters which by the naked eye are recognized to be malignant. What are we to suppose: that Virchow made a mistake, or that simple papilloma or pachydermia verrucosa may be quickly followed by cancer of the same part? Or that cancer in the larynx presents appearances, both to the laryngoscope and the microscope, which cannot be distinguished from papilloma? The last alternative is the proposition put forward by various writers in England and Germany, from the beginning of Dr. Mackenzie's attendance.

It is, of course, quite possible, that Virchow might have made a mistake, and a very serious one. But this may not be the only alternative even if the disease be really malignant in character. Supposing Virchow not to have made a mistake, would this case indicate that there might be a form of disease occurring in the laryngeal mucous membrane, which corresponds with Paget's disease of the nipple?

F. W.

DR. FREDERICK N. HYDE, of Cortland, New York, died recently at his home in the eightieth year of his age. He was graduated in 1835 and had been actively engaged in the duties of his profession for more than half a century, during which period he attained distinction as a surgeon and became widely known and respected. In another column, we lay before our readers a valuable treatise written by Dr. Hyde a few months before his death on the subject of "Medullary Cancer."

NOTES FROM SPECIAL CORRESPONDENTS.

LONDON.

OPENING OF THE MEDICAL SCHOOLS—
THE HARVEIAN ORATION—EPIDEMICS
OF WHOOPING COUGH AND OF SCAR-
LET FEVER—STATE REGULATION OF
ARCHITECTURE AND ENGINEERING—"B.
P. C." UNOFFICIAL FORMULARY, ETC.

GREAT interest is always felt, even outside the circle immediately affected by the result, as to the number of students who have entered each year at the various medical schools in this country. Needless to say, there is a keen rivalry, not only between the three countries, but also and especially between the schools established in the same city. This rivalry is nowhere stronger than in London. The fluctuations at some schools are very wide and apparently inexplicable. Why, for instance, more students should just now go to St. Mary's than to Guy's Hospital is not easy to understand. St. Mary's has rushed rapidly from a very inferior to a very prominent place, and has well deserved to succeed. Its staff of teachers comprises many well-known names, and the apparatus for teaching is first-rate; yet the same, if not more, may be said for Guy's, which has, in addition to the prestige of a long roll of brilliant names, the more solid advantage of a large hospital. The decline of King's College and of University College is to be accounted for by the rivalry of Cambridge and of Oxford; but the same explanation will hardly apply to Guy's or St. George's Hospital. The gross result for London shows a slight increase over the average for the last quinquenniad. To people who are not teachers, however, the steady increase in the number of candidates for medical qualifications is not a ground for unmixed congratulations. Nearly seven hundred in London, and probably over three hundred in the provinces (including Oxford and Cambridge) make a total of more than one thousand in England alone. Scotland and Ireland together will probably contribute as many more. Even if only two-thirds succeed in qualifying, the question

arises unbidden to the lips, How are they all to get an honest living? Quackery is rampant, in spite of legislation which seriously hampers the quack; the prescribing chemist is at every street corner; and the benevolent gentlemen who know a sure and speedy cure for cancer, epilepsy, or consumption advertise with their customary benevolence in every paper. A committee of the New South Wales Legislature, over which the Hon. Dr. Creed presided, collected a mass of very curious evidence about incompetent and unqualified practice in Australia, and that colony has become rather too hot for some of the confraternity. Not a few of those whose acquaintance the committee were most anxious to make had disappeared when their names were called. One firm seems to have come to London, if an advertisement under the same name may be trusted, where we already had a plentiful supply of advertising nostrum-mongers. "Westward the course of empire takes its way." Once upon a time, all wonderful discoveries in medicines came from the East: the marvellous wash, for instance, which was to make people beautiful forever, but which, having failed in one case at least, led to its vendor spending some years in the seclusion of one of Her Majesty's convict prisons, was "brought on the back of swift dromedaries of the desert" for the use of the fair ones of the West. Now, however, the East is rather "played out," and the great and marvellous cures are effected by American drugs, culled by mysterious Indians, and retailed by enterprising companies or persevering but secret individuals. Moreover, there are always a hundred well intentioned people who are to be found at every sick and ailing person's elbow with advice which, in reality, and not merely in pretence, costs nothing, and is worth about the same sum. Happily, a satisfactory proportion, and these the most sensible and valuable class, are as little impressed by this gratuitous advice as was Hotspur when told that

"The sovereign'st thing on earth
Was parmaceti for an inward bruise."

The Harveian Oration, delivered annually before the Royal College of

Physicians of London, was given this year by Dr. W. H. Stone, Physician to St. Thomas Hospital. He called his discourse *Iatrophysika*, the "physical physician," coining the word because he desired to give prominence to one special quality which he claimed for Harvey: namely, that he was a physiologist, and approached physiological problems from that side. Harvey's own private notes for his lectures, delivered in 1616, were discovered about ten years ago, and, acting on the suggestion of Sir Edward Sieveking, the College of Physicians published them this year in fac simile, with a transcript. The notes are written mainly in Latin, but there is a considerable admixture of English, so that the result is a curious medley. Nevertheless, the ideas are generally very precisely expressed; and in places the ideas, if not the words, are eloquent. A good example at the same time of the peculiarities and merits of the notes is afforded by the following sentences, quoted by Dr. Stone. Speaking of the maintenance of the human species by generation, in spite of the death of the individual, he says: "By the string tyed to eternity. Unde cum natura non potuit Individualem æternitatem, id quod potuit harum partium facultate speciem æternitatis generando sibi similem in secula. Unde sacris literis greatest blessing Issue, that thy seed shall remayne for ever."

Dr. Stone finds a remarkable mathematical element running through the argument both of the great treatise and of these lectures. He contended that physiological physics are too much neglected, and that all the physics a medical student should be compelled to learn ought to have a bearing, direct or indirect, on the physics of medicine. The student is already very heavily burdened by the load of "preliminary sciences" laid upon him, and anything that tends to make these preliminary studies more really helpful would be very welcome. The toast honored by the Mathematical Society is said to be: "Pure Mathematics; and may it never be any use to anybody!" A jesting exaggeration of a sentiment which seems to be rather prevalent in some scientific coteries, and one which

reduces science to the level of chess or whist. Why cannot the student's mind be as well trained by the study of that department of physics which has most intimate relations with his future life-work as by working problems on the C. G. S. system of units, or reducing himself to the verge of dementia by attempting to choose between rival vortex-theories of matter; or to comprehend whether the "fourth dimension of space" is a sane theory or a recondite joke. This was the main conclusion drawn at the end of a very eloquent discourse.

It is a curious fact that whooping-cough has been very prevalent in London during the summer months, which were hotter and drier this year than for the last two decades. An analysis of the returns week by week would, I believe, show that the epidemic began almost in the same week as the hot-weather. The deaths from whooping-cough in London had been below the average. All through the spring, which was cold and wet, in the week ending June 4th they were 3.4 below the average; the fine hot spell began on June 5th, 6th. In the week ending June 11th the deaths from whooping-cough were above the average; in the following week they were 6.3 above the average; then there was a temporary decline, but the above figure was exceeded in the week ending July 9th, when 86 children died of the disease, or 7.5 above the average. The following table shows the corrected number of deaths in each quarter since the beginning of 1885:

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
1885	607	661	541	669
1886	1551	786	295	202
1887	443	834	823	

It would be interesting to know whether the mortality during the hot weather was as high in relation to the total number of cases, i. e., to the morbidity of whooping-cough, as is the case when the epidemics occur in winter. No novel methods of treating the disease have been made known. A great many physicians content themselves

with treating the catarrh. Good results may sometimes be obtained with belladonna in sufficiently large doses, but ill-fed or anæmic children do not bear it well, and for them there are few drugs equal to quinine. The catarrh, in them, is often not severe, though the paroxysms of cough may be frequent and exhausting. Whether the quinine really acts as a nervous sedative, or merely as a tonic would be difficult to say, but if there is much bronchitis it is of little use, and it is hardly worth while to continue it for more than a fortnight or three weeks in any case. Diarrhœa, which is often present, also seems to contraindicate belladonna, but not quinine. Dr. John Lowe, who recommended pure benzol some time ago, has again called attention to it. He lays stress on the necessity of having the drug quite pure, and says that disappointment is often due to neglect of this precaution. The dose for a child of four or five years is $\mathfrak{m}\text{ij}$ every two hours, and he begins its use at the end of the acute stage; then it diminishes expectoration and decreases the spasmodic character of the cough. The prescription he gives is: *R. Benzol puriss. (Hopkins & Williams), $\mathfrak{m}\text{xxxij}$; glycerin. pur., $\mathfrak{z}\text{iss}$; ol. menth. pip., $\mathfrak{m}\text{x}$; syr. mori, $\mathfrak{z}\text{ss}$. M. Sig.— $\mathfrak{z}\text{i}$ Secunda quaque hora.*

As benzol is a chemical body of known composition, there is no reason why any respectable chemist should not be able to supply as pure an article as the firm mentioned. The local application of resorcin in solution (about one per cent.) gives in my experience results as uncertain as any other remedy. In the early stage it, in some cases, at first seems to do some good. How much of this good effect is due to the vomiting, which is generally induced, is doubtful; and however this may be, no advantage is obtained by its long continued use.

The present epidemic of scarlet fever in London is the most extensive of which any accurate record has been preserved; it still retains its mild character, though the hospitals of the Metropolitan Asylums Board alone contained, in the week ending October 15th, 2,016 patients suffering with scarlet fever; the total number of deaths from this

fever in the whole of London was only 124, and the general death rate from all causes was 16.7. It is reported that in nearly all cases consent is obtained for the removal of the patients from their own homes to one of the special fever hospitals, which now number six, besides several huts; the total number of beds provided to meet the emergency is 2,344, and of this number 2,143 were, on October 22d, occupied by patients suffering from scarlet fever. In his report for 1885, recently issued, the Registrar-General for England directed special attention to the very low scarlet fever mortality in 1885, and observed: "If the diminished mortality be due to diminished prevalence, there must be at the present time an abnormal accumulation of unprotected children in the population, and consequently a probability hereafter of a period of excessively high mortality; whereas, if the diminution be due simply to mildness of type, no such anticipation need be entertained, inasmuch as a mild attack is believed to confer as perfect after-immunity as does a more severe attack." The existing epidemic appears to be almost conclusive in favor of the first alternative.

A bill has been drafted by a committee of leading architects and civil engineers for the state regulation of architecture, civil engineering, and surveying; at the present time any person who so pleases can commence the practice of one or all of these professions with no qualifications beyond self-assurance; the spokesman of the architects themselves admits that very many so-called architects are utterly ignorant of the most elementary laws of sanitation, and that by their want of knowledge they may and do "cause serious risk to the lives of their clients, besides putting them often to large and grossly unnecessary expense." The draft bill would provide for the creation of a general council of architectural, civil engineering, and surveying education, and registration of the United Kingdom; with branch councils for England, Scotland and Ireland. The whole scheme is modelled upon the system of medical registration in force, and provides for the registration by this council of all

persons at present in practice as architects, civil engineers, or surveyors, and the compulsory examination of all hereafter desirous of entering its ranks. There can be no doubt at all that it would be a great advantage to the public, if architects were better trained in sanitary details and domestic architecture. If the bill would really effect so desirable a reform, it would be very deserving of support. Unfortunately, however, it does not from beginning to end contain one reference to sanitary construction and engineering. Moreover, some of the ablest and most famous architects in this country are grossly ignorant of sanitary requirements, or incredibly careless; it would be easy to prove this by instances. One has recently come under my observation: a small country house built from the designs and under the superintendence of one of the leading architects in London; it is most conveniently planned, soundly built, and the elevation is very picturesque; the drains however are very badly arranged, and when examined recently were found to have been so carelessly finished that not one was in proper working order; evidently an ignorant or dishonest builder had been allowed to make the connections between the house pipes and the drains in any way that pleased his conscienceless soul, the architect not caring to take the trouble to ascertain whether the beautiful house he had built would not be rendered almost uninhabitable by imperfect drainage. Yet this very gentleman, were such a council to be established, would very probably be one of the first persons nominated or elected to it. *Quis custodiet custodes?*

The British Pharmaceutical Conference appointed a committee last year to draw up a series of formula for preparations, not official, in the British Pharmacopœia, but in frequent use. The first report, which has just been issued, is a modest pamphlet, containing thirty-seven formulæ. Strophanthus, convallaria, casca bark, bryony, hydrastis, and coto, are among the most important "new" drugs in the formulary. There are also a series of useful formulæ for the syrups of the hypophosphites; the whole scheme is, I understand, a direct

imitation of the similar formulary issued by the American Pharmaceutical Association.

The mention of strophanthus recalls to mind the rather conflicting statements made in various quarters to its value; it has been stated that its action is rendered more certain by the addition of ether, thus:

R Tinct. strophanthi. . . (1 in 20) ℥ v
Aetheris. 3 ss
Aq. anethi. ad 3 ss M.

Sir William Gull Bart, M.D., F.R.S., is suffering from right hemiplegia with slight aphasia; the bulletins state that he is making good progress toward recovery. Though he has to some extent withdrawn from active practice, his incapacitatory illness or death would remove a very conspicuous and influential figure from the medical world of London.

The late William Richard Quain, F.R.S., emeritus professor of anatomy in the University College, has left the whole of his fortune to that institution, to be applied to the encouragement of the study of modern languages and literature, especially English, and of natural science. The college receives £60,000 at once, and £15,000 on the death of certain legatees.

DAWSON WILLIAMS.

MEMPHIS.

AMERICAN PUBLIC HEALTH ASSOCIATION.—MEMPHIS SEWERAGE.—NATIONAL AND STATE QUARANTINES.—CREMATION OF GARBAGE.—WATER POLLUTION.—PRIZE ESSAY ON ECONOMICAL COOKERY.—DISINFECTANTS.—NATIONAL HEALTH BUREAU.—PERSONAL.

THE American Public Health Association has just adjourned after a four day's session in this city. The experiment in sewerage, begun here seven years ago, was one of the subjects whose study added greatly to the interest of the meeting. The almost unanimous sentiment of the Association is that the experiment was successful, and that the action of the local authorities in attacking the problem with so much courage and vigor has advanced the cause of practical sanitation more than any other sanitary experiment of the decade.

The subject of quarantine administration was pretty fully discussed by Drs. Rauch, Wyman, Holt, Bell and others. Dr. Bell showed very conclusively in his remarks that the administration of the quarantine service at New York was utterly inefficient. The quarantine at New Orleans on the other hand is unquestionably the most complete in equipment and effective in administration of any such in this country, if not in the world. The quarantine services at most other posts on the Atlantic seaboard, excepting Boston, are entirely below criticism. Not one of them answers the demands of modern sanitary science.

The prevailing sentiment of the Association was in favor of national supervision of maritime quarantine. Some of the members were in favor of placing the control of quarantine in the hands of the Marine Hospital Service, and this view was ably argued by Dr. Wyman of that service. He said the disciplined body of trained medical officers constituting that service would form an organization ready to take charge of the work. Being under the control of the Secretary of the Treasury, it could summon, when necessary, as quarantine aid, the collectors of customs, who have by law the powers of search and detention of vessels, and who may be relied upon for accurate information. By department usage the Secretary of the Treasury is immediately furnished with copies of all health dispatches received at Washington by the State Department from its foreign consuls and ministers. The Secretary has likewise a powerful aid in the revenue cutter service, as a naval force to patrol the coast, and as a maritime police to assist in quarantine. The machinery for a national quarantine seems to be thus already provided and in such constant activity as to prevent its getting rusty or being taken unawares by sudden invasion. The only additional legislation needed to make a national quarantine under this service effective, is the appropriation of sufficient means to properly equip and maintain government quarantine stations, and an act providing penalties for violating the quarantine laws.

While the absolute control of quaran-

tine by the national authorities seemed to meet with many objections, most of the speakers were quite willing that the national government should give pecuniary aid where State or municipal authorities were too economical to equip and maintain an efficient quarantine establishment. Resolutions were adopted advocating increased appropriations for the national quarantine stations at Delaware Breakwater, Cape Charles, Sapelo, and the Gulf of Mexico.

The cremation of garbage was treated in a practical paper by Dr. Laberge, of Montreal, where all the garbage has been disposed of in this manner for the past two years. The experimental study of this method of garbage disposal has also been begun in Pittsburg, Wheeling and Des Moines.

The problem of water pollution was prominently brought to the notice of the Association by papers and remarks from Dr. Charles Smart, U. S. A., Dr. Williston, of New Haven, Dr. Hewitt, of Minn., Dr. Walcott, of Mass., Prof. Brewer, of Yale College, Dr. Abbott, of Mass., and others. In Massachusetts a very extensive and thorough study of water pollution, both as to its causes and remedies, has just been begun under the direction of the State Board of Health. The Legislature of that State has appropriated thirty thousand dollars for the purpose of defraying the expenses of this experimental study.

Mr. Henry Lomb, of the firm of Bausch & Lomb, of Rochester, through whose liberality over one hundred thousand copies of the prize essays on "Disinfection," "Healthy Homes for the Working Classes," "School Hygiene" and "Factory Hygiene," issued under the auspices of the Association, have already been distributed, offers a prize of \$500, and one of \$200, for the best essays on the following subject: "Practical, Sanitary and Economic Cooking for Persons of Small Means."

A committee, consisting of Drs. C. A. Lindsley, George H. Rohé and V. C. Vaughan, was appointed to carry the proposition of Mr. Lomb into effect. The committee was instructed to add to its number two ladies who have practical experience as instructors in cooking, in order that the best essays may be selected.

The Committee on Disinfectants presented a final report, consisting of four parts: "A Detailed Report of Laboratory Work on Various Disinfectants," by Dr. G. M. Sternberg, Chairman of the Committee; "An Experimental Investigation into the Destruction of Pto-maines," by Prof. V. C. Vaughan, of the University of Michigan; "Recent Methods of Practical Disinfection in Contagious Diseases," by Dr. George H. Rohé, and "Maritime Disinfection as applied at the New Orleans Quarantine Station," by Dr. Joseph Holt. All of the papers contributed by the committee to the transactions of the Association, during the past three years, are to be published in a separate volume and sold at the cost of publication. It is believed that this will be the most complete and practical work on sanitary disinfection obtainable in print. The results of Dr. Sternberg's experiments upon various pathogenic organisms, with the disinfecting agents tested, may be summarized as follows:

Moist heat of a temperature of 56° C. (132.8° F.), maintained for five minutes is fatal to the bacillus of anthrax, the bacillus of typhoid fever, the bacillus of glanders, the spirillum of Asiatic cholera, the erysipelas coccus, the virus of vaccinia, of rinderpest, of sheep-pox, and probably of several other infectious diseases. A temperature of 62° C. (143.6° F.), maintained for the same time, is fatal to all of the pathogenic organisms tested, in the absence of spores. A temperature of 100° C. (212° F.), maintained for the same time destroys the spores of all pathogenic organisms which have been tested.

Of the chemical disinfectants tested, a solution of chloride of lime (1:25), bichloride of mercury (1:500), sulphate of copper (1:20), and carbolic acid (1:20), are generally efficient. The last two only can be relied upon, however, if the organisms to be destroyed do not form spores. Dr. Sternberg also tried caustic lime in solutions of varying strength, but without satisfactory results.

The recommendation in the address of the president, that a national health bureau should be established, was adopted by the Association, and resolutions were passed urging the necessary

legislation upon Congress.

Resolutions were also adopted, urging upon railroad companies to disinfect excreta before allowing them to be scattered along the tracks, and thus becoming probable sources of infection.

The officers elected for the coming year are Dr. C. N. Hewitt, of Minnesota, President; Drs. George B. Thornton, of Tennessee, and Joseph Holt, of Louisiana, Vice-President; and Drs. Henry B. Baker, of Michigan, S. H. Durgin, of Massachusetts, and J. N. MacCormack, of Kentucky, to fill vacancies on the Executive Committee. The ever popular Treasurer, Dr. J. Berrien Lindley, was re-elected to that position.

The social attentions were not so profuse as those offered last year at Toronto, but quite sufficient to distract some of the younger members from faithful attendance at the meetings.

The Association will meet next year in Milwaukee. G. H. R.

BOSTON.

THE FOURTH YEAR OF MEDICAL STUDY AT HARVARD; GLANDERS AMONG CATTLE; HORSES; PROSPERITY OF BENEVOLENT AND CHARITABLE INSTITUTIONS:

THE session of the medical department of Harvard University has opened with an attendance slightly smaller than last year. The faculty have been struggling for some years with a problem of which they have certainly not yet reached a solution, namely: the four years' course for medical students. It was felt by many that this period was none too long for a satisfactory course of professional study, such as the university is now abundantly qualified to give. It was not felt, however, that the school was yet in a position to insist on such a course as a requisite for its degree. So the compromise method was adopted of inviting students to add one year to the regular course, the diploma to bear evidence that that period of time had been spent. Practically, the fourth year work consists almost entirely of clinical instruction in the various specialties of medicine, ophthalmology, laryngology, gynecology, and the like; it is a post-graduate, or polyclinic year, added to the former and still regular curriculum. But a

man need not elect to take this fourth year until he has finished his third year; and it has often happened that this decision has been dependent upon whether he had succeeded in getting a wished-for hospital appointment, or wanted to "wait around" another year for the purpose of getting it, or for making up failures in previous work. So that, as one of the students happily expressed it, it remains a mooted question whether the taking of the fourth year is really to be considered a creditable thing or not. It is now proposed that no student shall be allowed to take the fourth year who has not successfully passed all the examinations of the first three years. This will settle the conditions of the fourth year men's position. But it is thought by some that a four years' course, to fulfil its best purpose, should be graded on that basis of time *ab initio*, instead of graded for three years, and then having a number of specialties tacked on as a sort of after-thought. Before the much desired step can be taken of requiring this lengthened course of all students, it will be necessary to provide a means whereby a student in the academic department can make his relative studies of the senior year count as a portion of his medical school work. For, with the increasing requirements for admission to the college, the average age of the students has increased to such a degree that they do not graduate till more than twenty two and a half years of age. If to this we add four years of medical study, a year in hospital, and one or two years abroad, the period of beginning practice is postponed altogether too late to suit the patience of the average young man, or to agree with the condition of his purse.

For the last month or more a controversy of some bitterness has been going on between the cattle commissioners of the State of Massachusetts and one of the local horse-car companies, over certain cases of alleged glanders. The cattle commissioners consist of three persons, supposed to be experts in the diseases of cattle. They are appointed by the Governor, to receive compensation at so much per day of actual work. Of a large number of horses owned by the Cambridge road, the commissioners

ordered 169 to be isolated, as having symptoms of glanders. Some of these animals were classed as merely suspicious; others as probable; others, again, as dangerous cases. The killing of these animals, which the commissioners had power to order, would have cost the road \$15,000 or \$20,000. To protect their interest, they employed three veterinarians, one of them, Dr. Lyman, the head of the Veterinary Department of Harvard University. These men expressed doubt of the existence of glanders in most of the cases, from clinical examination. Four of the most suspicious cases were killed for the sake of post-mortem examination; and in at least two cases, it is said, there was nothing found to point to the disease. Dr. Winchester, the veterinarian of the board, was not convinced, and it was proposed to call in experts from outside the State, among them Dr. Huidekoper, of Philadelphia; but the majority of the board of commissioners finally receded from their position, persuaded, apparently, by the result of the autopsies, and the company was authorized to resume control of most of the horses, which animals, by the way, had not, during all the time of confinement, appeared to suffer in health to any considerable degree. The horses not yet released, numbering some sixty or seventy, are isolated in a separate stable pending further examination.

The Massachusetts Medical Benevolent Society held its annual meeting, last week, at the house of the President, Dr. Henry W. Williams. The society was established for the relief of the indigent physicians, and more especially of the widows and children of those who left no pecuniary resources. It now possesses invested funds amounting to some \$23,000, the income from which, together with the money received from annual assessment of the members, is all devoted (there being little or no expense of administration) to the charitable purposes of the society. The beneficiaries receive each about \$80 per annum, a small sum, it is true, but, in the circumstances in which it is given, of great assistance in eking out the livelihood of worthy but struggling families.

Three of our important hospitals

have recently published their annual reports—the City Hospital, the Boston Dispensary and the Free Hospital for Women. All show prosperity and an increase in the amount of work done. It is painful to notice, however, among the expenses of maintaining the last-named institution, a very heavy legal fee, incurred in defending suits brought against the hospital by a patient who had received gratuitous treatment, and had so little sense of gratitude or decency as to try to extort money from the institution which had, in charity, done so much for her.

Dr. B. E. Cotting, one of our venerable and honored practitioners, a gentleman widely known in scientific circles outside of medicine, having been, for instance, a companion of Agassiz in his South American voyage of zoological exploration, has just completed his fiftieth year of medical practice, and, in retiring from active work, he read before a recent meeting of one of our societies a most interesting and instructive paper in retrospect of his professional career, speaking of many of the changes and advances in medical practice in the past half century, *quorum magna pars fuit*. It is hoped that this, together with some personal reminiscences of the same period, will one day be published.

C. F. W.

REVIEWS AND BOOK NOTICES.

A TEXT-BOOK OF MEDICINE FOR STUDENTS AND PRACTITIONERS. BY DR. ADOLF STRUMPELL. Translated (by permission) from the second and third German editions, by Hermann F. Vickery, A.B., M.D., and Philip Coombs Knapp, A.M., M.D., with Editorial Notes, by Frederick C. Shattuck, A.M., M.D. With 111 illustrations. New York: D. Appleton & Co. 1887. 8vo, 981.

This is an excellent translation of a standard text-book on practice of medicine, now in its third edition in the original. The systematic discussion of diseases and treatment is conducted in a direct, terse manner, the prescription quantities being given in both metric and troy weights. The notes are brief, but pointed and judicious. We notice a slight slip on page 3, where, in re-

ferring to the Plymouth typhoid epidemic, the statement is made that Philadelphia had no Board of Health in 1885. Nearly half this large work is devoted to nervous diseases. The work of translation is admirably done.

ABSTRACTS AND GLEANINGS.

OCCCLUSION OF THE ŒSOPHAGUS.—Drs. BOBBITT and BATTLE, in the *North Carolina Med. Journal*, report a case in which a boy, who had an Œsophageal stricture, endeavored to swallow a large piece of ham. The result was a total occlusion of the Œsophagus, not even water being swallowed. After various efforts had been made to relieve the patient, without success, the following method was adopted: Thirty grains of trypsin and ten grains of bicarbonate of sodium were dissolved in an ounce of distilled water. A rubber tube was passed down to the obstruction, and a small quantity of the preparation injected. This was repeated hourly. The next morning the boy could swallow without difficulty, and in the water vomited was found a number of fibres of the ham.

MANGANESE OXIDE AS AN EMMENAGOGUE.—Professor J. N. Upshur, of Richmond, Va., read a paper on the "Emmenagogue Action of the Manganese Preparations" before the Section on Therapeutics in the Ninth International Medical Congress, in which he recommends pills of bin-oxide of manganese in amenorrhœa, or in scanty painful menstruation, especially where it is due to defective vascular or nervous supply. In membranous dysmenorrhœa it is of special value. It is given in doses of one or two grains, administered after meals three times a day, and to get its full effects it should be given continuously for one or two months. It is to be preferred to the permanganate of potassium. When the amenorrhœa is connected with obvious deterioration of the blood, he gives iron in combination with the manganese. Where there is obesity, larger doses of manganese are given so as to favor waste. In vicarious menstruation, it is also useful, and, in fine, wherever the menstrual derangement is due to functional and not mechanical or obstructive cause.

LETTERS TO THE EDITORS.

It is the earnest desire of the Editors to increase the usefulness of this Journal, and to render it a practical helper to its readers. One method of accomplishing this end is to open a column devoted to letters to the Editors. Short, concise papers upon medical subjects, records of cases worth being reported, and queries on any medical subject are requested.

PHYSICIANS AND PHARMACEUTISTS.

Editors MEDICAL TIMES:

The conclusions reached in your editorial of November 15, entitled "The Relations of Practical Pharmacy to Medicine," seem to me so entirely mistaken, and the general tone of the article, as well as the advice given, so well calculated to mislead those just entering practice, that I am prompted to avail myself of your invitation for "Letters to the Editors."

Having been graduated from the Philadelphia College of Pharmacy in 1880, after the necessary four years' apprenticeship (a considerable portion of it spent in Philadelphia drug stores), and from the Medical Department of the University of Pennsylvania in 1883, since which I have been engaged in active practice, I think I may fairly lay claim to sufficient practical experience and sufficient opportunities for observation in both professions to justify me in forming an opinion on the subject.

The consideration of the relations of the pharmacist to the physician, as a whole, covers entirely too wide a field for discussion here. I can only say that I most heartily dissent from most of the opinions expressed in your article.

That the recent graduate in pharmacy is better fitted for the duties of his profession than the average M. D., is to enter practice, and that the better class of pharmacists adhere at least as strictly to their unwritten "Code of Ethics" as do any class of physicians to their more fully formulated principles of professional conduct, are propositions which will, I think, be admitted by every phy-

sician who has any but the most limited acquaintance with pharmacists.

These, and other facts, are too often ignored by physicians.

There are druggists, to be sure, whose "standard is commercial, not professional." Unfortunately, the same thing is true in perhaps an equal measure of physicians.

For a physician to say that the druggist must "treat gonorrhœa, and prescribe across the counter, or go out of business," is much the same as if a druggist should say that the physician must procure abortion or give up practice. Ill feeling between pharmacists and physicians, disadvantageous alike to both, is not to be remedied by sweeping denunciation of either class by the other.

The competition of counter-prescribing druggists is not, I think, so serious a factor as you consider it. Still, it is an evil, and should be restrained within its narrowest possible limits. But I do not think the "natural and effectual remedy" the one you propose, that "when the young physician receives his diploma, let him set up a pharmacy."

Nor do I think that, unless in very exceptional cases, it will be a good thing for the young physician who tries it. I am very certain that he will not obtain more experience of value "in one year in a drug-store than from five years of practice," nor will he "build up in one year a larger practice than by five years of ordinary work." Nor will he have much "opportunity of studying the methods and witnessing the results of the practice of other physicians," as every prescription clerk knows.

The knowledge of drugs he gains he will in all probability find rather expensively acquired; for, though he will find a pharmaceutical education of value to him as a physician, he will also find that his medical education has gone a very little way indeed towards making him a successful pharmacist. The people will not all flock at once to the new drug-store whose proprietor has yet to learn the rudiments of the business, because, forsooth, he is an M. D., and has perhaps "spent at least a season in Vienna or Paris."

"The druggist will then be con-

fronted with a competitor better equipped than himself." Yes, better equipped for treating gonorrhœas, perhaps, but not at all equipped for the real business of the druggist.

Moreover, the young physician will find that being half-pharmacist, half-physician, while it may suffice after some years to keep the pot boiling, will effectually prevent any real professional success.

The kind of practice he will get in his drug-store is the least pleasant, the least honorable, and the least profitable there is to be had; and out of the rank in which he has placed himself he will find it difficult if not impossible to rise.

E. H. B.

A CASE FOR DIAGNOSIS.

Editors MEDICAL TIMES:

I have a patient, a beautiful, intelligent and accomplished young lady, who has been sick nearly three months. She was taken with a very severe pain in the region of the heart, which was only relieved by morphine. It left her with an intermittent pulse, a pain on taking a deep inspiration, and considerable circumscribed soreness above the left nipple, about the size, over the surface, of the palm of the hand. By using digitalis, the heart was strengthened; that disagreeing, antipyrin was given, with the effect of relieving the pain and the intermittent pulse. That disagreed, and, after discontinuing it, the pain and soreness returned, and exists to-day. She has lost no flesh, is cheerful, and would be well were it not for the pain and soreness, which prevents her from walking or sitting up long at a time. My anxiety to effect a cure is greater than I can describe. What can the trouble be, and will you please suggest treatment? She is now taking infusion digitalis, fluid extract broom-top for slight œdema of abdominal walls, and occasionally takes a dose of Peacock's Bromides.

If the case seem of sufficient importance, you may publish this brief description, and solicit opinion and treatment.

G. B. S.

Weston, W. Va.

[We would suggest that possibly the condition in this patient is one which is a sequel of a disease rather than an active morbid process. The case appears, at first glance, to be one of circumscribed pleurisy, followed by adhesions, in which the inflammation either directly involved the pericardium (pleuro-pericarditis) or simply affected the pleura in the lower anterior part of the left chest. We would recommend inunctions, locally, with camphorated oil containing chloral hydrate (3j to f3ij) or chloroform (15j to f3 ij.) Gymnastic exercises, by increasing the respiratory capacity of the chest, might stretch the adhesions. The iodides might be used internally in combination with alkalies, or alkaline mineral water.

F. W.]

BUCKWHEAT RASHES.

Editors MEDICAL TIMES:

AS this is the season for buckwheat cakes, it is probable that a very large number of our people, especially the younger members, are indulging in this staff of life. I desire to obtain your aid in an investigation which I am about to make. There seems to be a belief, more or less common, that buckwheat when eaten will occasionally be productive of eruptive diseases, as urticaria and the like. My opinion has often been asked whether young children should be allowed to eat freely, or at all, of buckwheat cakes. From my own experience, I have always replied in the affirmative, of course guarding this advice by caution as to over-indulgence.

I desire now to bring the subject before the brethren, and request that any who may have records of cases where eruptive or any other form of disease has followed and been supposed to result from the use of buckwheat, will kindly furnish me the data. I will also be obliged for information as to the existence of any literature of this subject.

WM. B. ATKINSON, M.D.

Philadelphia, Nov. 12, 1887.

IN DIPHTHERITIC CONJUNCTIVITIS, Prof. Keyser claims excellent results from the use of chlorate of potassium, gr. xx-xl to f3j, with hot compresses.

MISCELLANY.

GENERAL CLINICAL SERVICE OF THE MEDICO-CHIRURGICAL HOSPITAL.—The classes of the medical and dental schools have had the advantage, during the fall course just ended, of seeing a number of rare operations performed by Professor Garretson. Amongst these was the removal of a tumor lying beneath the carotid artery, and attached to the body of a cervical vertebra, which required a delicacy of manipulation not often called for by a surgical condition. The patient, a gentleman from North Carolina, left the hospital for his home after seven days in the ward. The incision was of the general character of that used for the ligation of the primitive carotid artery, but very much longer. Preliminary to the dissection the muscle and vessels were lifted and held out of the way by means of retractors. The vascular character of the tumor compelled strangulation of its base. A perfect cure was promised the patient.

A second operation, one very seldom done before a class, consisted in the complete clearing out of the zygomatic fossa, the part being reached through the removal of the coronoid process of the inferior maxilla, the ligation of the internal maxillary artery, and detachment of the temporal and external pterygoid muscles. This is an operation devised by the elder Pancoast, but attempted so seldom that few surgeons have ever witnessed it, much less done it. The patient in this case, a gentleman from New Jersey, was so great a sufferer from neuralgia that his usual dose of morphine was two grains, while even under such influence his nights were spent in wandering from cellar to garret, while his cries were the disturbance of his neighborhood. Monday evening the patient sat up, and on Tuesday he visited about the wards and enjoyed a cigar. Up to the present writing he remains free from even so much as a twinge of pain. Prof. Garretson expresses a belief that the relief will be permanent, owing to the fact of the removal of all nerve structure emerging from the oval foramen.

The surgical clinics of the hospital are continuously rich in rare cases. Prof. Pancoast's Wednesday clinics,

the eye clinic by Prof. Keyser on Fridays, and the orthopædic series held by Prof. Goodman on Thursdays, prove inviting to practitioners of the city and surrounding country, many of whom are constantly present. The classes of these two schools will number this winter not less than four hundred.

THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA held its eighth regular meeting at the Supreme Court Room, State Capitol, Harrisburg, Wednesday, November 9th, at 2 P. M.

The report of the secretary, which was presented, embraced the following items of public interest:

1. Annual report of the Board to the Governor.
2. Instructions for preventing the further pollution of Sugar Creek, addressed to the council of Troy, Bradford county.
3. Report on a sanitary investigation of the borough of Allegheny Furnace, Blair Co., by Charles B. Dudley, M.D., inspector.
4. Report of a sanitary inspection of Camp Winfield Scott Hancock, by Wm. B. Atkinson, M. D., and D. J. McKibbin, M. D., inspectors, with morning reports of officers of the day.
5. Action of the Secretary in reference to cases of glanders in Philada.
6. Conference between State Veterinarian Bridge, of Philadelphia, Dr. C. N. Hewitt, Secretary of the State Board of Health of Minnesota, and the Secretary, on inter-State notification of infectious diseases of domestic animals.
7. Correspondence in reference to the prevalence of epizootic spinal meningitis in New Jersey.
8. Report of Secretary as delegate to the Annual Conference of State Boards of Health.
9. Report on the work of the section on Hygiene and State Medicine of the Ninth International Medical Congress, by the Secretary.
10. Report of typhoidal pollution of Ballygoming Creek, W. B. Atkinson, M. D., inspector.
11. Report of inspections at Unionville and Coatesville, Chester county, W. B. Atkinson, M. D., inspector.
12. Report of inspection of bone

boiling establishment at Sellersville, Bucks county, W. B. Atkinson, M. D., inspector.

13. Letter to the Board of Health of Philadelphia on Quarantine of the Delaware against cholera.

Also, the reports of standing committees:

1. Executive Committee: Pemberton Dudley, M. D., Chairman.

2. Committee on Registration and Vital Statistics: Benjamin Lee, M. D., Chairman.

3. Committee on Preventable Diseases and the Supervision of Travel and Traffic: Joseph F. Edwards, M.D., Chairman.

4. Committee on Water Supply, Drainage, Sewerage, Topography and Mines: Howard Murphy, C. E., Chairman.

5. Committee on Public Institutions and School Hygiene: J. H. McClelland, M. D., Chairman.

6. Committee on Adulterations, Poisons, Explosives, and other Sources of Danger to Life and Limb: Pemberton Dudley, M. D., Chairman.

7. Committee on Sanitary Legislation, Rules and Regulations: David Engelman, M. D., Chairman.

8. Report of special committee appointed to inspect the drowned lands in Exeter and Wyoming Boroughs, Luzerne county: Howard Murphy, C.E., Chairman.

9. Appointment of standing committees for the ensuing year.

10. Unfinished business.

11. New business. Nomination and election of vaccine inspector for the Lower Merion District.

Nomination and election of medical inspector for the Western Slope District.

—DR. ASHHURST performed tracheotomy in his Clinic held at University Hospital, Nov. 12th, 1887, for dyspnea and partial aphonia from impairment of the glottis following diphtheria. He stated that the first incision, through the skin, produces anæsthesia of the surrounding tissues, and quoted Brown-Sequard's experiments on animals as corroborating his views. Therefore it is his custom to give no anæsthetic in tracheotomy, and he claims, with good results; but this patient proved to be an exception, and struggled violently.

OFFICIAL LIST

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM NOV. 6, 1887, TO NOV. 19, 1887.

COLONEL GLOVER PERIN, ASSISTANT-SURGEON GENERAL.—Retired from active service, Nov. 17, 1887, by operation of law. S. O. 260, A. G. O., Nov. 17, 1887.

MAJOR CHAS. R. GREENLEAF, SURGEON.—Par. 8 S. O. 248, A. G. O., Oct. 25, 1887, directing Surgeon Greenleaf to visit the recruiting depots and rendezvous at certain places, is amended to include Davenport, Iowa; Quincy, Ills., and Evansville, Ind. S. O. 257, A. G. O., Nov. 4, 1887.

CAPT. C. B. BYRNE, ASSISTANT-SURGEON.—Relieved from temporary duty at Ft. McHenry, Md., and will return to his proper station, Washington Barracks, D. C. S. O. 242, Div. Atlantic, Nov. 11, 1887.

CAPT. HARRY O. PERLEY, ASSISTANT-SURGEON.—Now on duty at Ft. Wayne, Mich. Ordered for temporary duty with troops stationed at Highwood, near Chicago, Illinois. S. O. 258, A. G. O., Nov. 5, 1887.

CAPT. LEONARD Y. LORING, ASSISTANT-SURGEON.—Ordered for duty at Ft. Morgave, Ariz. Ty., upon the expiration of his present sick leave of absence. S. O. 258, A. G. O., Nov. 5, 1887.

FIRST LIEUT. F. J. IVES, ASSISTANT-SURGEON.—Granted leave of absence for one month, to take effect on or about the 15th inst. S. O. 113, Dept. Platte, Nov. 5, 1887.

FIRST LIEUT. F. V. WALKER, ASSISTANT-SURGEON.—Relieved from duty at post of San Antonio, and assigned to duty at Ft. Ringgold, Tex. S. O. 130, Dept. Texas, Nov. 8, 1887.

OFFICIAL LIST OF CHANGES OF STATIONS AND DUTIES OF MEDICAL OFFICERS OF THE U. S. MARINE HOSPITAL SERVICE, FOR THE TWO WEEKS ENDED NOV. 12, 1887.

SURGEON WALTER WYMAN.—To proceed to Louisville, Ky., and Memphis, Tenn., as inspector, Nov. 2, 1887.

PASSED ASSISTANT-SURGEON F. W. URQUHART.—Relieved from duty at Cape Charles Quarantine, ordered to Norfolk, Va., Nov. 6, 1887.

ASSISTANT-SURGEON G. M. MAGRUDER.—When relieved, to rejoin station at Chicago, Ill., Nov. 8, 1887.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING NOV. 12, 1887.

SURGEON T. C. HEYE, detached from the Marion, proceed home and wait orders.

PASSED ASSISTANT-SURGEON T. C. CRAIG.—Detached from the Marion, proceed home and wait orders.

MEDICAL INSPECTOR H. M. WELLS.—Detached from the Trenton, proceed home and wait orders.

MEDICAL DIRECTOR GEO. PECK.—Ordered to Washington, D. C., as member of Examining Board.

SURGEON JAS. G. AYRES.—Ordered to the Galena to relieve Surgeon F. L. DuBois.

SURGEON F. L. DUBOIS.—Detached from the Galena, proceed home and wait orders.